

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director



January ##, 2019

Mr. Andy Buckland and Mr. Paul Scott
Plant Managers
Shurtape Technologies, LLC
P. O. Box 1530
Hickory, NC 28603

SUBJECT: Air Quality Permit No. 02218T36
Facility ID: 1800206
Shurtape Technologies – Hickory/Highland Plant
Hickory, Catawba County, NC
Fee Class: Title V
PSD Class: Major

Dear Mr. Buckland and Mr. Scott:

In accordance with your completed Air Quality Permit Application for a Renewal of your Title V permit received on December 14, 2017 and minor modification received June 8, 2018, we are forwarding herewith Air Quality Permit No. 02218T36 to Shurtape Technologies, 1620 Highland Avenue and 17th Street NE, Hickory, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mall Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Catawba County has not triggered increment tracking under PSD for any pollutants, so no tracking is required.

This Air Quality Permit shall be effective from January ##, 2019 until December 31, 2023, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Richard R. Simpson, at (919) 707-8476 or Richard.Simpson@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4
Mooresville Regional Office
Central Files
Connie Horne (cover letter only)

ATTACHMENT to Permit No. 02218T36

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
*IES-36-MRT-1	Molten Resin Tank - maximum capacity of up to 30,000 gallon capacity
*IES-36-BM-1	Bulk flake resin melter
*IS-PD1-EX1	Pilot-scale research and development extruder
IS-PD1-CT1	Up to 2kW Corona Treater
I-36-BBS	Small Plant 36 Bagbreak Station and filter
*I-ES-36-BM-2	Resin Pre-Melter
*I-FAE	Fragrance Application Equipment
*IES-33-WEBTREAT	Web treatment units
*IES-33-DRUMUNLOAD	Drum unload station
*IES- 33-ADMIX	Mix vessels
*IES-33-GR MACT Subpart GGGGG	Groundwater remediation system
*IES-33-IT-WB	Interior water-based holding, storage, and mixing tanks
*IES-36-POST-1	Process Oil Tank - maximum capacity of 13,000 gallons
*IES-36-IT-1	Water-based holding, mixing and flush tanks
*IES-36-WBST1 MACT Subpart EEEE	Storage tanks having a total combined capacity of 38,000 gallons
IES-36-RH-1	Raw materials and throat hoppers with two fabric filters with at least 119 square feet of filter surface area (CD-36-BH-1 and CD-36-BH-2) in series with one bag filter with 58.5 square feet of filter surface area (CD-36-BH-3)
IES-36-RH-3	Raw materials and throat hoppers with fabric filter with 58.5 square feet of filter surface area (CD-36-BH-4)
IES-36-MS-1	Raw material silo with fabric filter with at least 104 square feet of filter surface area (CD-36-BH-5) and/or fabric filter with at least 119 square feet of filter surface area (CD-36-BH-6)
*IES-POTank	1100 gallon process oil storage tank
*IES-33TG016(55)	Process oil storage tank - 10,000 gallon capacity
IES-27-WB1	125 gallon water based storage tank
*ES-R&D-Gen **MACT Subpart ZZZZ	130 kW natural gas/propane fired emergency generator
*ES-GEN1, ES-GEN2 **NSPS Subpart JJJJ ^AMACT Subpart ZZZZ	Two natural gas/propane fired emergency generators (<100 hp, each) ^c

*Emission source is subject to Actuals Plantwide Applicability Limitations (Actuals PAL) for VOCs.

**Emission source is subject to Actuals Plantwide Applicability Limitations (Actuals PAL) for GHG.

^A The Permittee shall notify the DAQ Regional Supervisor in the next Semi-Annual report when replacing either natural gas/propane fired emergency generator (ES-GEN1 and ES-GEN2).

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit."
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows: <http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

Summary of Changes to Permit

The following changes were made to the Shurtape Technologies, LLC – Highland Plant, Hickory, Air Permit No. 02218T35:

Page No.	Section	Description of Changes
Cover Letter	N/A	Updated cover letter with application number, permit numbers, dates, fee class, PSD increment statement, and Director name.
NA	Insignificant Activities	To be consistent with the rest of the permit, the dash “-“ was removed between the I and E for ID Nos. IES-36-MRT-1, IES-36-BM-1, and IES-36-BM-2.
NA	Insignificant Activities	For the appropriate sources, added a “*” to show that the sources were applicable to the Actual PAL for VOCs. Existing ID Nos. IES-36-BM-1 and IES-36-BM-2 were added to the Actual PAL list in Section 2.3 a.
NA	Insignificant Activities	Per minor modification permit application received on June 8, 2018, added “Web treatment units” with I.D. No. IES-33-WEBTREAT.
NA	Insignificant Activities	Per minor modification permit application received on June 8, 2018 and email description updates on October 18, 2018, added “Drum unload station” with I.D. No. IES-33-DRUMUNLOAD.
NA	Insignificant Activities	Per minor modification permit application received on June 8, 2018, added “Mix vessels” with I.D. No. IES- ADMIX.
6, 8	Section 1	In a previous permit application, the facility had the bulk resin system (ES-33-RS) being controlled by either the carbon absorption system (CD-33-6-10) or the thermal oxidizer (CD-33-56-RTO) “and” fabric filter (CD-33-0-11A). After the source was installed there was not a need to use fabric filter with the other control devices but the facility would like the option of using the fabric filter. Footnote “c” was added to the source, fabric filter, and located at the bottom of Section 1.
9	Section 2.1 A.	Visible emissions language in the Table were updated to read: “When emissions from the bulk resin system (ES-33-RS) is vented to the fabric filter (CD-33-0-11A), 20 percent opacity applies. Otherwise, 40 percent opacity applies.”
4, 14, 52	Sections 1, 2.1 B., and 2.3	Historical data and calculations reclassify the “Groundwater remediation system” as an Insignificant Activity and the I.D No. was changed to IES-33-GR
4, 14, 52	Sections 1, 2.1 B., 2.2 C., and 2.3	Since sources are similar, consolidated and moved storage tanks ES-33-2-45 to Hickory Plant Raw Storage section. ES-33-2-45 was updated and changed to ES-33-2-45ST. ES-33-2-46, ES-33-2-47, ES-33-2-48 were consolidated into ES-33-2-45ST with the source description changed to “Solvent and resin storage tanks having a total combined capacity of 80,000 gallons”.
4, 14, 49, 52	Sections 1, 2.1 B., 2.2 C., and 2.3	Similar sources ES-33-TST-TR2 and ES-33-TST-TR3 were consolidated into existing source ES-33-TST-TR1. The source description was updated to “Toluene transfer racks”.
4, 14, 49, 52	Sections 1, 2.1 B., 2.2 C., and 2.3	Similar sources ES-33-MT-21, ES-33-1-02 through ES-33-1-07, ES-33-1-10 through ES-33-1-13, ES-33-1-16, ES-33-2-20, ES-33-2-23, ES-33-2-27 through ES-33-2-33, ES-33-2-25, ES-33-2-19, ES-33-2-34 through ES-33-2-39, ES-33-2-41, and ES-33-42 were consolidated into existing source ES-33-1-01. The source description was updated to “Solvent-based adhesive mixers equipped with water cooled jackets, and adhesive storage tanks with a total combined capacity of 61,000 gallons”.

Page No.	Section	Description of Changes
4, 14, 48, 52	Sections 1, 2.1 B., 2.2 C., and 2.3	Similar sources ES-33ST-2, ES-33-53, and ES-33-54 were consolidated into existing source ES-33-33ST-1. The source description was updated to “Adhesive liquid storage tanks having a total combined capacity of 22,000 gallons”.
5	Section 1	For ES-33-PRT-TR1, included MACT EEEE. The source was listed correctly in Section 2.2 C.
5, 14, 48, 52	Sections 1, 2.1 B., 2.2 C., and 2.3	Similar source ES-33-2-44 was consolidated into existing source ES-33-2-43. The source description was updated to “Resin storage tanks having a total combined capacity of 7,500 gallons”. Per facility permit application updates, the source was added to the MACT EEEE Section 2.2 C.
5, 15, 52	Sections 1, 2.1 C., and 2.3	Similar sources ES-33-IT-2 through ES-33-IT-42 were consolidated into existing source ES-33-IT-1. Historical data and calculations reclassify the source as an Insignificant Activity and was moved to the section. ES-33-IT-1 was changed to IES-33-IT-WB. The source description was updated to “Interior water-based holding, storage, and mixing tanks”.
15, 27	Sections 2.1 C. and 2.1. F.	The NSPS Subpart RR regulations were moved to Section 2.2 D. to reduce redundancy and for simplification.
5, 15, 40, 51, 57	Sections 1, 2.1 C., 2.2 B., 2.3 and 2.4	Coating line No. 5 is one source. ES-33-5-02 and ES-33-5-03 were consolidated into existing source ES-33-5-01. The source description was updated to “Coating Line No. 5 consisting of a coating application station, a 12.5 million Btu/hr maximum heat input natural gas/propane-fired oven, and oven dry end hood”.
	Section 1	For clarity, MACT Subpart KK was added to Section 1 for ID Nos. ES-33-5-FP and consolidated source ES-36-CL-1.
5, 15, 16, 40, 51, 57	Sections 1, 2.1 C., 2.2 B., 2.3 and 2.4	Coating line No. 6 is one source and is now only water base. Therefore, CD-33-6-10 or CD-33-56-RTO are no longer applicable for this source. ES-33-6-01, ES-33-6-03, ES-33-6-04, and ES-33-6-CT were consolidated into existing source ES-33-6-02. The source description was updated to “Coating Line No. 6 consisting of a water based coating application station and a two natural gas/propane fired adhesive drying ovens with a combined heat input of 24 million Btu/hr and a corona treater (12 kW output)”. Due to water base application, CAM requirements in Section 2.1 C.6 no longer apply.
7, 35, 49, 51	Sections 1, 2.1 G., 2.2 C., and 2.3	Similar sources ES-33-SPC-MT2 through ES-33-SPC-MT8 were consolidated into existing source ES-33-SPC-MT1. The source description was updated to “Mixing tanks having a total combined capacity of 4,000 gallons”.
7, 15, 41, 51	Sections 1, 2.1 C., 2.2 B., 2.3 and 2.4	Coating line No. 7 is one source. ES-33-07-01 was consolidated into existing source ES-33-07-02. The source description was updated to “Coating Line No. 7 consisting of two water based coating application stations and two natural gas/propane fired drying ovens with a total heat input of 24.5 million Btu/hr”.
8, 16, 41, 51	Sections 1, 2.1 C., 2.2 B., and 2.3	Coating Line No. 8 sources ES-33-8-04 and ES-33-8-05 are the same source. Consolidated source ES-33-8-05 into existing source ES-33-08-04. The source description was updated to “Coating Line No. 8 consisting of a coating application station and an oven exit exhaust pick up”.

Page No.	Section	Description of Changes
8, 16, 41, 51	Sections 1, 2.1 C., 2.2 B., 2.3, and 2.4	Coating line No. 9 is one source. ES-33-09-01 was consolidated into existing source ES-33-09-02. The source description was updated to “Coating Line No. 9 consisting of two water based coating application stations and two natural gas/propane fired drying ovens with a total heat input of 12.5 million Btu/hr maximum heat input”.
8, 16, 41, 51	Sections 1, 2.1 C., 2.2 B., 2.3, and 2.4	Per minor modification permit application received on June 8, 2018, added new source with description of “Adhesive Coating Line No. 10 consisting of coating application station” and a new I.D. No. ES-33-COAT10. The new source is subject to NSPS Subpart RR, MACT Subpart JJJJ and existing PAL for VOCs.
7, 23, 51	Sections 1, 2.1 D., and 2.3	Similar sources ES-33-2-50 and ES-33-2-51 were consolidated into existing source ES-33-2-49. The source description was updated to “Mixing area parts cleaners”.
8, 24	Sections 1 and 2.1 E.	The facility request to not have the option to use No. 2 fuel oil in Boiler 1 (ES-36-BLR-B1). Any relevant language that has No. 2 fuel oil has been removed from the permit including Sections of NSPS Dc in Section 2.1 E.4.
8	Section 2.1 E.5.	Deleted old and/or redundant dates in the CAA § 112(j); Case-by-Case MACT for Boilers & Process Heaters section.
8, 27	Sections 1 and 2.1 E.6.	Added MACT Subpart DDDDD regulations for applicable boilers since the initial compliance date is May 20, 2019.
4, 27, 52	Sections 1, 2.1 G., and 2.3	Historical data and calculations reclassify ES-36-POST-1 as an Insignificant Activity. The I.D No. was changed to IES-33-POST-1 and the description was updated to “Process Oil Tank - maximum capacity of 13,000 gallons”.
4, 27, 52	Sections 1, 2.1 G., and 2.3	Historical data and calculations reclassify “Twenty-six water-based holding, mixing and flush tanks” as an Insignificant Activity. Since all the sources are similar, consolidated sources ES-36-IT2 through ES-36-IT-26 into existing source ES-36-IT-1. The I.D No. was changed to IES-36-IT-1 and the description was updated to remove the capacity of each tank.
8, 27, 49, 52	Sections 1, 2.1 G., 2.2 C. and 2.3	Historical data and calculations reclassify “Three storage tanks” as an Insignificant Activity. Since the sources are similar, consolidated sources ES-36-WBST2 and ES-36-WBST3 into existing source ES-36-WBST1. The I.D No. was changed to IES-36-WBST1 and the description was updated to “Storage tanks having a total combined capacity of 38,000 gallons.”
8, 27, 41, 52, 57	Sections 1, 2.1 F., 2.2 B., 2.2 D., 2.3, and 2.4	The coating line at Highland Plant is one source. ES-36-CL-2, ES-36-CL-3, ES-36-DO-1, ES-36-DO-2, ES-36-DO-3, ES-36-CL-7, ES-36-CL-8, and ES-36-CL-10 were consolidated into existing source ES-36-CL-1. The source description was updated to “Coating line consisting of three coating/printing stations, three natural gas drying ovens with a combined maximum heat input of 17.2 million Btu/hour, and three corona treaters”. The Highland coating line ES-36-CL-1 was moved to Section 2.1 C. with the other coating lines subject to the same regulations. The NSPS Subpart RR requirements were moved to Section 2.2 D.
8, 32	Sections 1 and 2.1 I.,	Historical data and calculations reclassify “Two raw materials hoppers and two throat hoppers” as an Insignificant Activity. Since the sources are similar, consolidated sources ES-36-RH-2, ES-36-TH-1, and ES-36-TH-2 into existing source ES-36-RH-1. The I.D No. was changed to IES-36-RH-1 and the description was updated to “Raw materials and throat hoppers”.

Page No.	Section	Description of Changes
8, 32	Sections 1 and 2.1 I.	Historical data and calculations reclassify “Four raw materials hoppers and four throat hoppers” as an Insignificant Activity. Since the sources are similar, consolidated sources ES-36-RH-4, ES-36-RH-5, ES-36-RH-6, ES-36-TH-3, ES-36-TH-4, ES-36-TH-5, and ES-36-TH-6 into existing source ES-36-RH-3. The I.D No. was changed to IES-36-RH-3 and the description was updated to “Raw materials and throat hoppers”.
8, 32	Sections 1 and 2.1 I.	Historical data and calculations reclassify “Raw materials silo” as an Insignificant Activity. The I.D No. was changed to IES-36-MS-1.
10, 52, 57	Sections 1, 2.3, and 2.4	Boiler No. 6 (I.D. No. ES-33-BLR-B6) will no longer be used at the facility and has been deleted from the permit.
10, 52, 57	Sections 1, 2.3, and 2.4	Per minor modification permit application received on June 8, 2018, the source description for the No. 2 fuel tank was updated to “Storage tank for petroleum hydrocarbon, 3,000 gallon capacity”. The I.D. No. changed from ES-36-TK-Oil to ES-36-TK-PET.
10, 52	Sections 1 and 2.3.	Historical data and calculations reclassify “1100 gallon process oil storage tank” as an Insignificant Activity. The I.D No. was changed to IES-POTank.
10, 52	Sections 1 and 2.3.	Historical data and calculations reclassify “Process oil storage tank - 10,000 gallon capacity” as an Insignificant Activity. The I.D No. was changed to IES-33TG016(55).
10, 52	Sections 1 and 2.3.	Each of the petroleum-based liquid storage tanks with an 80 gallon capacity (I. D. Nos. ES-33-SAT#1, ES-33-SAT#7, and ES-33-SAT#9) will no longer be used at the facility and has been deleted from the permit.
10, 52	Sections 1 and 2.3.	Historical data and calculations reclassify “125 gallon water based storage tank” as an Insignificant Activity. The I.D No. was changed to IES-27-WB1.
10, 40, 52, 57	Sections 1, 2.1 K., 2.3 and 2.4.	Calculations reclassify “Two natural gas/propane fired emergency generators (<100 hp, each)” as an Insignificant Activity. The I.D Nos. were changed to IES-GEN1 and IES-GEN2.
10, 39, 52, 57	Sections 1, 2.1 L., 2.3 and 2.4.	Calculations reclassify “130 kW natural gas/propane fired emergency generator” as an Insignificant Activity. The I.D No. was changed to IES-R&D-Gen.
12, 16, 27, 34	Sections 2.1 A.1., 2.1 C.1., 2.1 F.1., 2.1 G.1.	Updated language with the DAQ shell Title V permit conditions for 15A 02D .0515: Particulates from Fuel Miscellaneous Industrial Processes.
13, 18, 25, 28, 35, 36	Sections 2.1 A.2., 2.1 C.3., 2.1 E.3., 2.1 F.3., 2.1 G.2., 2.1 K.2.,	Updated language with the DAQ shell Title V permit conditions for 15A 02D .0521: Control of Visible Emissions.
17, 25, 29, 35	Sections 2.1 C.2., 2.1 E.2., 2.1 F.2., 2.1 K.1.	Updated language with the DAQ shell Title V permit conditions for 15A 02D .0516: Sulfur Dioxide Emissions from Combustion Source.
24	Section 2.1 E.1	Updated language with the DAQ shell Title V permit conditions for .15A NCAC 02D .0503: Particulates from Fuel Burning Indirect Heat Exchanger.
14, 15	Sections 2.1 B., 2.1 C.	Due to similar source regulations and to reduce redundancies, combined previous Section 2.1 C. into current Section 2.1 B.

Page No.	Section	Description of Changes
23	Section 2.2 B.1.e.	Added clarification language that reads: “-According to the methods and procedures in §63.3360(e), the Permittee performed and passed the required performance test to establish the destruction or removal efficiency of thermal oxidizer (ID Nos. CD-33-56-RTO) on February 14, 2006.”
31	Section 2.2 C.e.i.	Added clarification language that reads: “Existing storage tanks consolidated with similar sources in Permit 02218T36 in Section 2.2 C. above have met the Notification of Compliance Status requirements..”
31	Section 2.2 C.f.i.	Added clarification language that reads: “Existing transfer racks consolidated with similar sources in Permit 02218T36 in Section 2.2 C. above have met the Notification of Compliance Status requirements.”
32	Section 2.2 D.1.b.	For clarity of NSPS Subpart RR regulations, additional language was added which reads “Otherwise, if Sources listed in Section 2.2 D. above exceed 45 Mg (50 tons) per 12 month period, calculated each month for the previous twelve (12) months, they are subject...”.
32	Section 2.2 D.1.h.	Additional information was added for NSPS Subpart RR regulations which read “Due to the process of auto-therming, the RTO operating temperature was established as 1500 °F, with 1450 °F being the compliance temperature, above which all three-hour average temperature must remain. The Permittee can reestablish the minimum temperature set point upon retesting and update the permit operating limits as a minor modification in accordance with 15A NCAC 02Q .0515. The permittee may operate within 10% of the current temperature setpoint during testing to reset the operating limits as long as the emission limit is maintained during testing.”
28	Section 2.1 G., 2.1 I., and 2.1 L	Pervious Section 2.1 G., 2.1 I., and 2.1 L. were moved to the Insignificant Activities section and no longer in the previous permit.
55	Section 2.3 m.	PAL VOC monthly emission rates were added for minor modification sources drum unloading station (ID Nos. IES-33-DRUMUNLOAD) and adhesive mixing tank (ID Nos. IES-33-ADMIX).
59	Section 2.4 h.	PAL CO ₂ monthly emission formulas sections were deleted for No. 2 fuel oil since the facility will no longer use the fuel.
62-77	Section 3	The General Conditions were updated to the latest version of DAQ shell version 5.3 08/12/2018.



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
02218T36	02218T35	January ##, 2019	December ##, 2023

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **Shurtape Technologies, LLC – Hickory/Highland Plant**

Facility ID: 1800206

Facility Site Location: 1620 Highland Avenue and 17th Street NE
City, County, State, Zip: Hickory, Catawba County, North Carolina, 28603

Mailing Address: PO Box 1530
City, State, Zip: Hickory, North Carolina, 28603

Application Number: 1800206.17C and 1800206.18A
Complete Application Date: December 15, 2017 and June 8, 2018

Primary SIC Code: 2672
Division of Air Quality, Mooresville Regional Office
Regional Office Address: 610 East Center Avenue, Suite 301
Mooresville, North Carolina 28115

Permit issued this the ##rd day of January, 2019

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

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ATTACHMENT
List of Acronyms

SECTION 1- PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Hickory Plant Rubber Grinding and Conveying System				
12 and 51	ES-33-15-02	Rubber grinding and conveying system equipped with a simple process cyclone (CD-33-0-10) 38 inches in diameter installed in series with all fabric filters	CD-33-0-11A ^d	Fabric filter (with at least 3,018 square feet of filter surface area)
			CD-33-BH2 and CD-33-AF2	Fabric filter (with at least 131 square feet of filter surface area) in series with a fabric filter (with at least 33 square feet of filter surface area) venting to atmosphere
			-OR-	-OR-
			CD-33-BH2, CD-33-AF2, and CD-33-0-11A ^d	Fabric filter (with at least 131 square feet of filter surface area) in series with a fabric filter (with at least 33 square feet of filter surface area) venting to fabric filter (with at least 3,018 square feet of filter surface area)
			CD-33-BH3 and CD-33-AF3	Fabric filter (with at least 131 square feet of filter surface area) in series with a fabric filter (with at least 33 square feet of filter surface area) venting to atmosphere
			-OR-	-OR-
			CD-33-BH3, CD-33-AF3, and CD-33-0-11A ^d	Fabric filter (with at least 131 square feet of filter surface area) in series with a fabric filter (with at least 33 square feet of filter surface area) venting to fabric filter (with at least 3,018 square feet of filter surface area)
			CD-33-BH4 and CD-33-AF4	Fabric filter (with at least 131 square feet of filter surface area) in series with a fabric filter (with at least 33 square feet of filter surface area) venting to atmosphere
			-OR-	-OR-

			CD-33-BH4, CD-33-AF4, and CD-33-0-11A ^d	Fabric filter (with at least 131 square feet of filter surface area) in series with a fabric filter (with at least 33 square feet of filter surface area) venting to fabric filter (with at least 3,018 square feet of filter surface area)
Hickory Plant Adhesive Storage Tanks				
14, 48, and 50	ES-33-TST-TR1, MACT Subpart EEEE	Toluene transfer racks	N/A	None
14, 48, and 50	ES-33-SBPRT-TR1 MACT Subpart EEEE	Solvent-based resin transfer racks	N/A	None
14, 47, 50, and 51	ES-33-1-01 MACT Subpart EEEE	Solvent-based adhesive mixers equipped with water cooled jackets, and adhesive storage tanks with a total combined capacity of 61,000 gallons	CD-33-6-10 -OR- CD-33-56-RTO	No. 2 Triple bed carbon adsorption system (47,685 scfm combined total inlet air flow capacity of three beds, 837 ft ³ actual carbon volume per bed, CD-33-6-10) with three exhaust stacks, each with a stack height of 50 feet, including a hydrocarbon analyzer calibrated for toluene, installed within each exhaust stack, a pre-filter, two cooling towers, and process (decant) water stripper -OR- Regenerative thermal oxidizer - natural gas fired (11.5 million Btu/hr maximum heat input)
Hickory Plant Mixed Solvent Raw Material Storage Tanks and Transfer Racks/Fill Ports				
47 and 51	ES-33ST-1 MACT Subpart EEEE	Adhesive liquid storage tanks having a total combined capacity of 22,000 gallons	N/A	None
15, 48, and 50	ES-33-SBPRT-TR3 and ES-33-SBPRT-TR4 MACT Subpart EEEE	Two Fill ports	N/A	None
14, 48, and 51	ES-33-PRT-TR1 MACT Subpart EEEE	One Petroleum resin transfer rack	N/A	None

Hickory Plant Raw Material Storage				
15, 47, and 50	ES-33-2-45ST MACT Subpart EEEE	Solvent and resin storage tanks having a total combined capacity of 80,000 gallons	N/A	None
15, 47, 50, and 51	ES-33-52 MACT Subpart EEEE	Solvent-based coating mixing/storage tank having a maximum capacity of up to 1,500 gallons	N/A	None
15, 50	ES-33-2-43 MACT Subpart EEEE	Resin storage tanks having a total combined capacity of 7,500 gallons	N/A	None
Hickory Plant Coating Lines				
15, 40, 50, 51, and 56	ES-33-5-01 NSPS Subpart RR MACT Subpart JJJJ	Coating Line No. 5 consisting of a coating application station, a 12.5 million Btu/hr maximum heat input natural gas/propane-fired oven, and oven dry end hood	CD-33-6-10 -OR- CD-33-56-RTO	No. 2 Triple bed carbon adsorption system (47,685 scfm combined total inlet air flow capacity of three beds, 837 ft ³ actual carbon volume per bed, CD-33-6-10) with three exhaust stacks, each with a stack height of 50 feet, including a hydrocarbon analyzer calibrated for toluene, installed within each exhaust stack, a pre-filter, two cooling towers, and process (decant) water stripper -OR- Regenerative thermal oxidizer - natural gas fired (11.5 million Btu/hr maximum heat input)
15, 40, and 51	ES-33-5-FP NSPS Subpart RR MACT Subpart JJJJ MACT Subpart KK	Coating line 5 flexographic printer	N/A	None
15	ES-33-5-CT1 and ES-33-5-CT2	Two (2) Line No. 5 Corona Treaters (10 kW output each)	N/A	None
15, 40, 50, 51, and 56	ES-33-6-02 MACT Subpart JJJJ	Coating Line No. 6 consisting of a water based coating application station and a two natural gas/propane fired adhesive drying ovens with a combined heat input of 24 million Btu/hr and a corona treater (12 kW output)	N/A	None

12, 33, 47, and 50	ES-33-RS ^c MACT Subpart EEEE	Bulk resin system including mixing tank	CD-33-6-10 -OR- CD-33-56-RTO -AND- CD-33-0-11A ^c	No. 2 Triple bed carbon adsorption system (47,685 scfm combined total inlet air flow capacity of three beds, 837 ft ³ actual carbon volume per bed, CD-33-6-10) with three exhaust stacks, each with a stack height of 50 feet, including a hydrocarbon analyzer calibrated for toluene, installed within each exhaust stack, a pre-filter, two cooling towers, and process (decant) water stripper -OR- Regenerative thermal oxidizer - natural gas fired (11.5 million Btu/hr maximum heat input) -AND- Fabric filter (with at least 3,018 square feet of filter surface area)
33,48, and 50	ES-33-SPC-MT1 MACT Subpart EEEE	Mixing tanks having a total combined capacity of 4,000 gallons	N/A	None
15, 40, 50, 51, and 56	ES-33-07-02 MACT Subpart JJJJ	Coating Line No. 7 consisting of two water based coating application stations and two natural gas/propane fired drying ovens with a total heat input of 24.5 million Btu/hr	N/A	None
15, 40, and 50	ES-33-8-02 NSPS Subpart RR MACT Subpart JJJJ	Coating Line No. 8 hot oil heated adhesive drying oven	CD-33-8-10 -OR- CD-33-6-10	No. 3 Nitrogen inerted solvent recovery system equipped with one cooling tower -OR- No. 2 Triple bed carbon adsorption system (47,685 scfm combined total inlet air flow capacity of three beds, 837 ft ³ actual carbon volume per bed, CD-33-6-10) with three exhaust stacks, each with a stack height of 50 feet, including a hydrocarbon analyzer calibrated for toluene, installed within each exhaust stack, a pre-filter, two cooling towers, and process (decant) water stripper

15, 40, and 50	ES-33-8-04 NSPS Subpart RR MACT Subpart JJJJ	Coating Line No. 8 consisting of a coating application station and an oven exit exhaust pick up	CD-33-6-10	No. 2 Triple bed carbon adsorption system (47,685 scfm combined total inlet air flow capacity of three beds, 837 ft ³ actual carbon volume per bed, CD-33-6-10) with three exhaust stacks, each with a stack height of 50 feet, including a hydrocarbon analyzer calibrated for toluene, installed within each exhaust stack, a pre-filter, two cooling towers, and process (decant) water stripper
16, 40, 50, 51, and 56	ES-33-09-02 NSPS Subpart RR MACT Subpart JJJJ	Coating Line No. 9 consisting of two water based coating application stations and two natural gas/propane fired drying ovens with a total heat input of 12.5 million Btu/hr maximum heat input	N/A	None
16 and 50	ES-33-0-01 NSPS Subpart RR MACT Subpart JJJJ	Pilot coater No. 1 (used for Research and Development and for commercial production)	N/A	None
16 and 50	ES-33-PC-2 NSPS Subpart RR	Pilot coater No. 2 (used for Research and Development)	N/A	None
16 and 50	ES-PD1-CAL1 ^d NSPS Subpart RR	Pilot-scale research and development calender	N/A	None
16 and 50	ES-33-COAT10 NSPS Subpart RR MACT Subpart JJJJ	Adhesive Coating Line No. 10 consisting of coating application station (33-COAT10)	N/A	None
Hickory Plant Parts Washers				
23 and 51	ES-33-2-49	Mixing area parts cleaners	N/A	None
Boilers				
11, 23, 51, and 56	ES-33-BLR-B3 112(j) MACT Subpart DDDDD	Boiler No. 3 - Natural gas/propane fired boiler (7.1 million Btu/hr maximum heat input)	N/A	None
11, 23, 51, and 56	ES-33-BLR-B4 112(j) MACT Subpart DDDDD	Boiler No. 4 - Natural gas/propane-fired (8.37 million Btu/hour maximum heat input)	N/A	None
11, 23, 51, and 56	ES-33-BLR-B5 NSPS Subpart Dc 112(j) MACT Subpart	Boiler No. 5 - Natural gas/propane-fired (25.1 million Btu/hour maximum heat input)	N/A	None

	DDDDD			
11, 23, 51, and 56	ES-33-BLR-Temp ^a NSPS Subpart Dc 112(j) MACT Subpart DDDDD	Temporary Boiler – Natural gas/propane-fired (26.41 million Btu/hour maximum heat input)	N/A	None
23, 51, and 56	ES-36-BLR-B1 NSPS Subpart Dc 112(j) MACT Subpart DDDDD	Boiler 1- Natural gas/propane (10.475 million Btu/hour maximum heat input)	N/A	None
Highland Plant Coating Line				
19, 40, and 51	ES-36-CL-1 NSPS Subpart RR MACT Subpart JJJJ MACT Subpart KK	Coating line consisting of three coating/printing stations, three natural gas drying ovens with a combined maximum heat input of 17.2 million Btu/hour, and three corona treaters ^b	CD-36-RTO-1	Regenerative Thermal Oxidizer with single rotary valve - Natural gas/propane-fired (2.4 million Btu/hour maximum heat input)
Miscellaneous				
51	ES-33-MSPW1	Maintenance parts washer	N/A	None
51	ES-36-TK-PET	Storage tank for petroleum hydrocarbon, 3000 gallon capacity	N/A	None
51	ES-ST-25	3,000 gallons TSA/IPA tank	N/A	None
51	ES-R&DPRN1 and ES-R&DPRN2	Two research and development printers six inches and twelve inches width	N/A	None
51	ES-27-MSPW1	Maintenance parts washer	N/A	None
51	ES-36-MSPW1	Maintenance parts washer	N/A	None
51	ES-F-PW1	Maintenance department parts washer	N/A	None
51	ES-33-RDSB	R&D spray booth for small scale testing	N/A	None
51	ES-GPC	General plant cleaning - non toluene	N/A	None

^a. Boiler (ES-33-Temp) is permitted to operate only if any one of the permitted boilers (ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, and I-36-BLR-B1) is not operating. Boiler (ES-33-Temp) is not permitted to operate concurrently when all other boilers (ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, and I-36-BLR-B1) are operating.

^b. The Highland Plant Coating Line may be vented directly to the atmosphere when utilizing water-based coatings or when the drying ovens are in the cooling mode.

^c. Once the bulk resin system (ES-33-RS) is controlled by either the carbon absorption system (CD-33-6-10) or the thermal oxidizer (CD-33-56-RTO), the bulk resin system (ES-33-RS) also has the option of being controlled by fabric filter (CD-33-0-11A).

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 Emission Source(s) and Control Device(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. Hickory Plant Rubber Grinding and Conveying System (ES-33-15-02) and associated Fabric Filters (CD-33-0-11A, CD-33-BH2, CD-33-BH3, and CD-33-BH4) and Fabric Filters (CD-33-AF2, CD-33-AF3, and CD-33-AF4)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10P^{0.67}$ Where: P = Process weight in tons per hour; and E = Allowable emission rate in pounds per hour	15A NCAC 02D .0515
Visible emissions ¹	When emissions from the bulk resin system (ES-33-RS) is vented to the fabric filter (CD-33-0-11A), 20 percent opacity applies. Otherwise, 40 percent opacity applies.	15A NCAC 02D .0521
Odorous emissions	State-Enforceable Only See Section 2.2 A.1	15A NCAC 02D .1806
Volatile Organic Compounds	See Section 2.3	15A NCAC 02D .0530 [Actuals PAL]

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the rubber grinding and conveying system (ID No. ES-33-15-02) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 02D .0515 (a)]

$$E = 4.10 \times P^{0.67} \quad \text{Where: } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test exceed the limit given in Section 2.1. A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

¹The Hickory plant rubber grinding and conveying system (ES-33-15-02) was constructed prior to July 1, 1971 and is subject to the 40 percent opacity standards as specified in 15A NCAC 02D .0521(c). Under Air Permit No. 02218T34, emissions from the bulk resin system (ES-33-RS) were permitted to exhaust via the fabric filter (CD-33-0-11A) associated with the rubber grinding and conveying system. Upon emissions of the bulk resin system (ES-33-RS) being vented to the fabric filter (CD-33-0-11A), the rubber grinding and conveying system (ES-33-15-02) becomes subject to the 20 percent opacity standard as specified in 15A NCAC 02D .0521(d). If emissions from bulk resin system (ES-33-RS) are no longer exhausted via the fabric filter (CD-33-0-11A), then the rubber grinding and conveying system (ES-33-15-02) again becomes subject to the 40 percent opacity standard as specified in 15A NCAC 02D .0521(c).

Monitoring [15A NCAC 02Q .0508 (f)]

- c. Particulate matter emissions from the Hickory Plant Rubber Grinding and Conveying System (**ID No. ES-33-15-02**) shall be controlled by seven fabric filters as delineated in the equipment list. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the fabric filters and ductwork for leaks; and
 - ii. annual internal inspection of the fabric filters' structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and fabric filters are not inspected and maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of inspection and maintenance for the fabric filters shall be maintained in a logbook (written or electronic form) on site and made available to an authorized representative upon request. The logbook shall record the following:
- i. date and time of actions recorded;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the fabric filters;
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508 (f)]

- e. The Permittee shall submit the results of any maintenance performed on any control devices within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities in Section(s) 2.1 A.2.c and d postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Prior to emissions from the bulk resin system (**ID No. ES-33-RS**) being vented to the fabric filter (**ID No. CD-33-0-11A**), visible emissions from the Hickory Plant Rubber Grinding and Conveying System (**ID No. ES-33-15-02**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity. [15A NCAC 02D .0521(c)]
- b. Upon emissions from the bulk resin system (**ID No. ES-33-RS**) being vented to the fabric filter (**ID No. CD-33-0-11A**), visible emissions from the Hickory Plant Rubber Grinding and Conveying System (**ID No. ES-33-15-02**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521(d)]

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test exceed the limits given in Sections 2.1. A.2.a. and b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- d. i. To ensure compliance, once a month the Permittee shall observe the emission points of the rubber grinding and conveying system (**ID No. ES-33-15-02**) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. The Permittee shall reestablish "normal" visible emissions within 30 days of

beginning to vent emissions from the bulk resin system (**ES-33-RS**) to the fabric filter (**ID No. CD-33-0-11A**). If visible emissions from this source are observed to be above normal, the Permittee shall either:

- (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (EPA Method 9) for 12 minutes is below the limit given in Sections 2.1 A.2. a., b. and c. above.
- ii. (A) the above-normal emissions are not corrected per d.i.(A) above;
 - (B) the demonstration in d.i.(B) above cannot be made;
 - (C) the monthly observations are not conducted per d.i above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.
 The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the observations in Sections 2.1 A.2.d. and e. above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. Toluene Transfer Racks (ES-33-TST-TR1)

Solvent-Based Resin Transfer Racks (ES-33-SBPRT-TR)

One Petroleum Resin Transfer Rack (ES-33-PRT-TR1)

Hickory Plant Adhesive Storage and Resin Tanks (ES-33-1-01), and associated Carbon Adsorption System (CD-33-6-10) and Regenerative Thermal Oxidizer (CD-33-56-RTO)

Hickory Plant Raw Material Storage (ES-33-2-45ST and ES-33-52, ES-33-2-43)

Hickory Plant Mixed Solvent Raw Material Storage Tanks (ES-33ST-1)

Two Fill Ports (ES-33-SBPRT-TR3 and ES-33-SBPRT-TR4)

The following table provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
hazardous air pollutants	See Section 2.2 C.1. for affected sources and requirements	15A NCAC 02D .1111 [40 CFR 63 Subpart EEEE]
Odorous emissions	State-Enforceable Only See Section 2.2 A.1	15A NCAC 02D .1806

Regulated Pollutant	Limits/Standards	Applicable Regulation
volatile organic compounds	See Section 2.3	15A NCAC 02D .0530 [Actuals PAL]

C. Hickory Plant Coating Line No. 5 (ES-33-5-01) and associated Carbon Adsorption System (CD-33-6-10) or Regenerative Thermal Oxidizer (CD-33-56-RTO)

Hickory Plant Coating Line No. 5 Flexographic Printer (ES-33-5-FP)

Two (2) Line No. 5 Corona Treaters (ES-33-5-CT1 and ES-33-5-CT2)

Hickory Plant Coating Line No. 6 (ES-33-6-02)

Hickory Plant Coating Line No. 7 (ES-33-07-02)

Hickory Plant Coating Line No. 8 (ES-33-8-02) and associated Nitrogen Inert Solvent Recovery System (CD-33-8-10) or Carbon Adsorption Systems (CD-33-6-10)

Hickory Plant Coating Line No. 8 (ES-33-8-04) and associated Carbon Adsorption Systems (CD-33-6-10)

Hickory Plant Coating Line No. 9 (ES-33-09-02)

Hickory Plant Pilot Coater No. 1 (ES-33-0-01)

Hickory Plant Pilot Coater No. 2 (ES-33-PC-2)

Pilot-scale Research and Development Calender (ES-PD1-CAL1)

Hickory Plant Adhesive Coating Line No. 10 (ES-33-COAT10)

Highland Plant Coating Line (ES-36-CL-1) and associated Regenerative Thermal Oxidizer (CD-36-RTO-1)

The following table provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E = 4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
sulfur dioxide	2.3 pounds per million Btu heat input [Affected Sources: ES-33-5-01, ES-33-6-02, ES-33-07-02, and ES-33-09-02, and ES-36-CL-1]	15A NCAC 02D .0516(a)
visible emissions	40 percent opacity	15A NCAC 02D .0521(c)

Regulated Pollutant	Limits/Standards	Applicable Regulation
	[Affected Source: ES-33-5-01]	
visible emissions	20 percent opacity [Affected Source: All other sources listed above except for ES-33-5-01]	15A NCAC 02D .0521(d)
volatile organic compounds	See Section 2.2 D. for requirements [Affected Sources: ES-33-5-01, ES-33-5-FP, ES-33-8-02, ES-33-8-04, and ES-33-COAT10, ES-33-0-01, ES-33-PC2, ES-33-09-02, and ES-PDI-CAL1, and ES-36-CL-1]	15A NCAC 02D .0524 [40 CR 60 Subpart RR]
hazardous air pollutants	See Section 2.1 C.4. for requirements. [Affected Source: ES-33-5-FP and ES-36-CL-1]	15A NCAC 02D .1111 [for exclusion from 40 CFR 63 Subpart KK]
hazardous Air Pollutants	See Section 2.2 C.1. [Affected Sources: ES-33-0-01, ES-33-5-01, 33-5-FP, ES-33-6-02, ES-33-07-02, ES-33-8-02, ES-33-8-04, ES-33-09-02, and ES-33-COAT10, and ES-36-CL-1]	15A NCAC 02D .1111 [40 CFR 63 Subpart JJJJ]
Odorous emissions	State-Enforceable Only See Section 2.2 A.1	15A NCAC 02D .1806
volatile organic compounds	See Section 2.3	15A NCAC 02D .0530 [Actuals PAL]
GHG	See Section 2.4	15A NCAC 02D .0530 [Actuals PAL]

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-33-5-01, ES-33-5-FP, ES-33-6-02, ES-33-07-02, ES-33-8-02, ES-33-8-04, ES-33-09-02, ES-33-0-01, ES-33-PC-2, ES-PDI-CAL1, ES-33-COAT10, and ES-36-CL-1**) that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 02D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{Where} \quad \begin{array}{l} E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour} \end{array}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test exceed the limit given in Section 2.1. D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Record keeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring, record keeping, or reporting is required for particulate emissions from these sources.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from the coating line drying ovens (**ID Nos. ES-33-5-01, ES-33-6-02, ES-33-07-02, ES-33-09-02, and ES-36-CL-1**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516(a)]

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test exceed the limit given in Section 2.1. C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring, record keeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas and propane in the coating line drying ovens.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-33-5-FP, ES-33-6-02, ES-33-07-02, ES-33-8-02, ES-33-8-04, ES-33-09-02, ES-33-0-01, ES-33-PC-2, ES-PDI-CAL1, ES-33-COAT10, and ES-36-CL-1**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]
- b. Visible emissions from these sources (**ID Nos. ES-33-5-01**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity. [15A NCAC 02D .0521(c)]

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test exceed the limit given in Section 2.1. C.3.a. and b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- d. No monitoring, record keeping, or reporting is required for visible emissions from these sources.

4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY [MACT SUBPART KK]

- a. The Permittee has chosen to exclude the coating line no. 5 flexographic printer (**ID No. ES-33-5-FP**) and Highland Plant coating line (**ID Nos. ES-36-CL-1**) from an affected source designation under 40 CFR 63, Subpart KK, "National Emissions Standards for Hazardous Air Pollutants for the Printing and Publishing Industry." For this exclusion to apply, the sum of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the coating line No. 5 flexographic printer (**ID No. ES-33-5-FP**) and Highland Plant coating line (**ID Nos. ES-36-CL-1**) in each month shall not exceed five weight-percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied on the coating line no. 5 (**ID Nos. ES-33-5-01, and ES-33-5-FP**) and Highland Plant coating line (**ID Nos. ES-36-CL-1**) in that calendar month, including all inboard and outboard stations. [40 CFR 63.821(a)(2)(ii)]

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with the Test Methods and Procedures prescribed in 40 CFR 63.827 and General Condition JJ. If the results of this test exceed the limit given in Section 2.1. C.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring/Recordkeeping [15A NCAC 02Q .0508 (f)]

- c. The Permittee, choosing to exclude from an affected source, a product and packaging rotogravure or wide-web flexographic press and coating line which meets the limits and criteria in Section 2.1 C.4.a. above, shall maintain the records specified below for five years and submit them to the DAQ upon request: [40 CFR 63.829(f)]

- i. the total mass of each material applied each month on the press, including all inboard and outboard stations, and
- ii. the total mass of each material applied each month on the press by product and packaging rotogravure or wide-web flexographic printing operations.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- d. No reporting is required for this source.

D. Hickory Plant Parts Washers (ES-33-2-49)

The following table provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odorous emissions	State-Enforceable Only See Section 2.2 A.1	15A NCAC 02D .1806
volatile organic compounds	See Section 2.3	15A NCAC 02D .0530 [Actuals PAL]

E. Five (5) Natural Gas/Propane-Fired Boilers (ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-36-BLR-B1)

The following table provides a summary of limits and/or standards for the emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	0.33 lb/million Btu (ES-33-BLR-B3) 0.41 lb/million Btu (ES-33-BLR-B4) 0.354 lb/million Btu (ES-33-BLR-B5) 0.33 lb/million Btu (ES-33-BLR-Temp) 0.343 lb/million Btu (ES-36-BLR-B1)	15A NCAC 02D .0503(c)
sulfur dioxide	2.3 pounds per million Btu heat input [Affected Sources: ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-Temp, and ES-36-BLR-B1]	15A NCAC 02D .0516(a)
visible emissions	20 percent opacity [Affected Sources: ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-Temp, and ES-36-BLR-B1]	15A NCAC 02D .0521(d)
NA	Record monthly fuel usage [Affected Sources: ES-33-BLR-B5, ES-33-BLR-Temp, and ES-36-BLR-B1]	15A NCAC 02D .0524 [40 CFR 60 Subpart Dc]
hazardous air pollutants	Best Combustion Practices	15A NCAC 02D .1109 [CAA § 112(j)] MACT Subpart DDDDD
Odorous emissions	State-Enforceable Only See Section 2.2 A.1	15A NCAC 02D .1806
volatile organic compounds	See Section 2.3	15A NCAC 02D .0530 [Actuals PAL]

Regulated Pollutant	Limits/Standards	Applicable Regulation
GHG	See Section 2.4	15A NCAC 02D .0530 [Actuals PAL]

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. The allowable emissions of particulate matter shall be calculated by the equation $E = 1.090 \text{ times } Q \text{ to the } -0.2594 \text{ power}$. E = allowable emission limit in lb/million Btu. Q = maximum heat input in million Btu/hour (See 15A NCAC 02D .0503(c)). Emissions of particulate matter from the combustion of natural gas or propane as discharged from each indirect heat exchanger into the atmosphere shall not exceed the above limitations

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test exceed the limit given in Section 2.1. E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Record keeping [15A NCAC 02Q .0508(f)]

- c. No monitoring, record keeping, or reporting is required for particulate emissions from the firing of natural gas or propane in these sources.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from boilers (**ID Nos. ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-36-BLR-B1**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516(a)]

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1. E.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Record keeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring, record keeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas and propane in the boilers.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these boilers (**ID Nos. ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-BLR-B1**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity [15A NCAC 02D .0521 (d)].

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test exceed the limit given in Section 2.1. E.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. No monitoring/record keeping/reporting is required for visible emissions from the firing of natural gas or propane in the boilers.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS [NSPS SUBPART Dc]

- a. For the these boilers (**ID Nos. ES-33-BLR-B5, ES-33-BLR-Temp, and ES-36-BLR-B1**), the Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and

monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A “General Provisions.” [15A NCAC 02D .0524]

Recordkeeping [15A NCAC 02Q .0508(f)]

- b. In addition to any other recordkeeping required by 40 CFR 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of each fuel burned in boilers (**ID Nos. ES-33-BLR-B5, ES-33-BLR-Temp, and ES-36-BLR-B1**) during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained. [40 CFR 60.48c(g)]

Reporting [15A NCAC 02Q .0508(f)]

- c. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to NOTIFY the DAQ in writing of the following:
- i. the date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected facility (**ID No. ES-33-BLR-Temp**) is commenced, postmarked no later than 30 days after such date;
 - ii. the actual date of initial start-up of an affected facility (**ID No. ES-33-BLR-Temp**), postmarked within 15 days after such date;
 - iii. a summary report, acceptable to the Regional Air Quality Supervisor, the fuel usage activities of boilers (**ID No. ES-33-BLR-B5, ES-33-BLR-Temp, and ES-36-BLR-B1**) on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June.
- iv. All instances of deviations from the requirements of this permit must be clearly identified.
[40 CFR 60.7]

5. 15A NCAC 02D .1109: CAA § 112(j); Case-by-Case MACT for Boilers & Process Heaters

- a. The Permittee shall use best combustion practices when operating the affected boilers (**ID Nos. ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-BLR-B1**). The Permittee shall comply with this CAA §112(j) standard until **May 19, 2019**.

Monitoring/Recordkeeping

- b. To assure compliance, the Permittee shall perform an annual boiler inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
- i. Inspect the burner, and clean or replace any components of the burner as necessary;
 - ii. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and,
 - iii. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.

The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if the affected boilers are not inspected and maintained as required above.

- c. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. The date of each recorded action;
 - ii. The results of each inspection; and,
 - iii. The results of any maintenance performed on the boilers.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- d. No reporting is required for hazardous air pollutants from the firing of natural gas or propane in these sources.

6. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.7485, §63.7490(d), §63.7499(l)]

- a. For these sources (**ID Nos. ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-BLR-B1**), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."
 - i. The Permittee shall comply with the CAA §112(j) standard in **Section 2.1 E.5.** through **May 19, 2019.** The Permittee shall be subject to the requirements of this standard starting May 20, 2019. Note that the requirements of this standard may require action on behalf of the Permittee prior to May 20, 2019.

Definitions and Nomenclature [§63.7575]

- b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [§ 63.7565]

- c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD.

Compliance Date [§ 63.56(b), 63.7510(e)]

- d. The Permittee shall complete the initial tune up and the one-time energy assessment no later than May 20, 2019.

Notifications [§ 63.7545(e)(1), (8), §63.7530(d), (e), (f)]

- e. The Permittee shall submit a Notification of Compliance Status to the DAQ. The notification must be signed by a responsible official and submitted by July 19, 2019 for (**ID Nos. ES-33-BLR-B3, ES-33-BLR-B4**). The notification must be signed by a responsible official and sent before the close of business on the 60th day following the completion of the initial tune up and one time energy assessment (whichever is later) for (**ID Nos. ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-BLR-B1**). The notification shall contain the following:
 - i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, and description of the fuel(s) burned.
 - ii. the following certification(s) of compliance, as applicable:
 - A) "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR 63 Subpart DDDDD at the site according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)" [i.e., **Section 2.1 E.6.g.i. and ii.**]; and
 - (B) "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)" [i.e., **Section 2.1 E.6.h.**] and is an accurate depiction of the facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

General Compliance Requirements [§63.7505(a), §63.7500(f)]

- f. The Permittee shall be in compliance with the work practice standards in this subpart. These standards apply at all times the affected unit is operating except during periods of startup and shutdown.

Work Practice Standards [15A NCAC 02Q .0508(f)]

- g. i. For sources (**ID Nos. ES-33-BLR-B3, ES-33-BLR-B4**), the Permittee shall conduct a tune-up every two years and for sources (**ID Nos. ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-BLR-B1**), the Permittee shall conduct a tune-up annually as specified below.
 - (A). As applicable, inspect the burner, and clean or replace any components of the burner as necessary

- (the Permittee may perform the burner inspection until the next scheduled unit shutdown.
- (B) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
 - (C) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
 - (D) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject; and
 - (E) Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
[§63.7500(a), (e), §63.7540(a)(10), (a)(11)]
- ii. For **(ID Nos. ES-33-BLR-B3, ES-33-BLR-B4)**, each biennial tune-up shall be conducted no more than 25 months after the previous tune-up. For **(ID Nos. ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-BLR-B1)**, each annual tune-up shall be conducted no more than 13 months after the previous tune-up. [40CFR 63.7515(d)]
 - iii. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [§63.7540(a)(13), 63.7515(g)]
 - iv. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[§63.7500(a)(3)]
 - v. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in **Section 2.1 E.6.g** are not met.

Energy Assessment Requirements [15A NCAC 02Q .0508(f)]

- h. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. The energy assessment must address the requirements in 40 CFR 63 Subpart DDDDD, Table 3, with the extent of the evaluation for items (a) to (e) in Table 3 appropriate for the on-site technical hours listed in 40 CFR 63.7575. [§63.7500(a)(1), Table 3] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Recordkeeping Requirements [15A NCAC 02Q .0508(f), §63.7555]

- i. The Permittee shall keep the following:
 - i. a copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [§ 63.7555(a)(1)]
 - ii. maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:
 - (A) the concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the source;
 - (B) a description of any corrective actions taken as a part of the tune-up; and
 - (C) the type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit; and
[§63.7540(a)(10)(vi)]
 - iii. the associated records for **Sections 2.1 E.6.f through h.**
- j. The Permittee shall:
 - i. maintain records in a form suitable and readily available for expeditious review;

- ii. keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
 - iii. keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.
[§63.7560, 63.10(b)(1)]
- k. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if records are not maintained as described in **Section 2.1 E.6.i. and j.**

Reporting Requirements [15A NCAC 02Q .0508(f)]

- l. i. For **(ID Nos. ES-33-BLR-B3, ES-33-BLR-B4)**, the Permittee shall submit compliance reports to the DAQ on a 2-year basis. The first report shall cover the period beginning on the May 20, 2019 and ending on December 31, 2020. The first report shall be postmarked on or before January 30, 2021. Subsequent 2-year reports shall cover the periods from January 1 to December 31. The Permittee shall submit the subsequent compliance reports postmarked on or before January 30 for the previous 24-month period. [§63.7550(a), (b)]
- (A) The compliance report must also be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [§63.7550(h)(3)]
- ii. For **(ID Nos. ES-33-BLR-B5, ES-33-BLR-TEMP, and ES-BLR-B1)**, the Permittee shall submit compliance reports to the DAQ on an annual basis. The first report shall cover the period beginning on the May 20, 2019 and ending on December 31, 2019. The first report shall be postmarked on or before January 30, 2020. Subsequent annual reports shall cover the periods from January 1 to December 31. The Permittee shall submit the compliance report postmarked on or before January 30 of each calendar year for the preceding 12-month period. [§63.7550(a), (b)]
- (A) The compliance report must also be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [§63.7550(h)(3)]
- m. The compliance report must contain the following information:
- i. company name and address;
 - ii. process unit information, emissions limitations, and operating parameter limitations;
 - iii. date of report and beginning and ending dates of the reporting period;
 - iv. include the date of the most recent tune-up for each unit required according to **Section 2.1 E.6.g.** Include the date of the most recent burner inspection if it was not done as scheduled and was delayed until the next scheduled or unscheduled unit shutdown; and
 - v. statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
[§63.7550(a) and (c), Table 9]
- n. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the reporting requirements in **Section 2.1 E.6.l through m** are not met.

Testing [15A NCAC 20Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. To assure compliance, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements in Sections 2.1 A.2. d through f. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the above-normal emissions are not corrected per Section 2.1.A.2.d.(i) or if the demonstration in Section 2.1.A.2.d (ii) cannot be made. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the records in Section 2.1.A.2.e are not maintained.

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Facility-wide affected emission sources

State-enforceable only

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

B. Hickory Plant Coating Line No. 5 (ES-33-5-01) and associated Carbon Adsorption System (CD-33-6-10) or Regenerative Thermal Oxidizer (CD-33-56-RTO)

Hickory Plant Coating Line No. 5 Flexographic Printer (ES-33-5-FP)

Hickory Plant Coating Line No. 6 (ES-33-6-02)

Hickory Plant Coating Line No. 7 (ES-33-07-02)

Hickory Plant Coating Line No. 8 (ES-33-8-02) and associated Nitrogen Inert Solvent Recovery System (CD-33-8-10) or Carbon Adsorption Systems (CD-33-6-10)

Hickory Plant Coating Line No. 8 (ES-33-8-04) and associated Carbon Adsorption Systems (CD-33-6-10)

Hickory Plant Coating Line No. 9 (ES-33-09-02)

Hickory Adhesive Coating Line No. 10 (ES-33-COAT10)

Highland Plant Coating Line (ES-36-CL-1) and associated Regenerative Thermal Oxidizer (CD-36-RTO-1)

Pilot Coater No. 1(ES-33-0-01)

1. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY [MACT SUBPART JJJJ]

- a. For the sources listed in Section 2.2.B. above, the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111 “Maximum Achievable Control Technology” as promulgated in 40 CFR Part 63, Subpart JJJJ “National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating” including all applicable provisions of Subpart A, “General Provisions.” [40 CFR §63.3330(a) and §63.3340]

Emission Standards and Operating Limits

- b. For the sources listed in Section 2.2.B. above, the Permittee has chosen the option of limiting organic HAP emissions to no more than 20 percent of the mass of coating solids applied for each month [§63.3320(b)(3)].
- c. For coating line No. 5 emission sources (**ID Nos. ES-33-5-01**) and Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**), for which the Permittee uses thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**), the Permittee shall meet the operating limits specified in Table 1 to 40 CFR Part 63, Subpart JJJJ whenever the Permittee uses the thermal oxidizers (**ID No. CD-33-56-RTO or CD-36-RTO-1**) to comply with 40 CFR Part 63, Subpart JJJJ for those sources. These operating limits apply to emission capture systems and control devices, and the Permittee shall establish the operating limits during the performance test according to the requirements in §63.3360(e)(3). The Permittee shall meet the operating limits at all times after the Permittee establishes them [§63.3321(a)].

Table 1 to Subpart JJJJ of Part 63 Operating Limits if Using Add-on Control Devices and Capture System

For the following device:	You must meet the following operating limit:	And you must demonstrate continuous compliance with operating limits by:
Thermal oxidizer	The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.3360(e)(3)(i)	<ul style="list-style-type: none"> i. Collecting the combustion temperature data according to § 63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.

Performance Test [15A NCAC 02Q .0508(f)]

- d. The Permittee is not required to conduct performance test on solvent recovery devices (**ID Nos. CD-33-6-10 and CD-33-8-10**). [§63.3360(b)(3)].
- e. According to the methods and procedures in §63.3360(e), the Permittee performed and passed the required performance test to establish the destruction or removal efficiency of thermal oxidizer (**ID Nos. CD-33-56-RTO**) on February 14, 2006. The Permittee shall conduct-a performance test to establish the destruction or removal efficiency of the thermal oxidizers (**CD-36-RTO-1**) according to the methods and procedures in §63.3360(e). Details of the emissions testing and requirements can be found in Section 3. The Permittee may elect to defer performance testing to establish destruction efficiency of the thermal oxidizers (**ID Nos. CD-33-56-RTO and 36-RTO-1**) if the Permittee does not elect to utilize the RTO destruction efficiency in the monthly compliance determination and demonstrates compliance by assuming VHAP emissions are uncontrolled when sources associated with either of the thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**) are exhausted to either of the thermal oxidizers. If the Permittee elects to claim the credit for VHAP destroyed by either thermal oxidizer (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**), the Permittee shall first conduct performance tests to establish destruction efficiency in accordance with the methods and procedures in §63.3360(e). If the Permittee does not establish the destruction or removal efficiency of the RTO (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**) prior to claiming a destruction efficiency in the monthly compliance demonstrations, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 [§63.3360(e)].
- f. For the thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**), the Permittee shall establish the applicable operating limits required by §63.3321. These operating limits apply to each add-on emission

control device, and the Permittee shall establish the operating limits during the performance test required by paragraph (e) of §63.3360 according to the requirements in paragraphs (e)(3)(i) and (ii) of §63.3360.

- i. For the thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**), the Permittee shall establish the operating limits according to paragraphs (e)(3)(i)(A) and (B) of § 63.3360.
 - (A) During the performance test, the Permittee shall monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. The Permittee shall monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.
 - (B) The Permittee shall use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for the thermal oxidizer.
 - (C) If the Permittee does not establish the average combustion temperature as a minimum operating limit for the thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**) through the data collected during the performance test, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.
[§63.3321 and §63.3360(e)(3)]

- g. If the Permittee demonstrates compliance by meeting the requirements of § 63.3370(e), (f), (g), (h), (i)(2), (k), (n)(2) or (3), or (p), the Permittee shall determine capture efficiency using the procedures in paragraph (f)(1), (2), or (3) of §63.3360, as applicable.
 - i. The Permittee may assume his/her capture efficiency equals 100 percent if his/her capture system is a permanent total enclosure (PTE). The Permittee must confirm that his/her capture system is a PTE by demonstrating that it meets the requirements of Section 6 of EPA Method 204 of 40 CFR Part 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control device.
 - ii. The Permittee may determine capture efficiency according to the protocols for testing with temporary total enclosures that are specified in Methods 204 and 204A through F of 40 CFR Part 51, Appendix M. The Permittee may exclude never controlled work stations from such capture efficiency determinations.
 - iii. The Permittee may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in Appendix A of Subpart KK of 40 CFR 63. The Permittee may exclude never-controlled work stations from such capture efficiency determinations.

If the Permittee does not determine the capture efficiency of each capture system, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

[§63.3360(f)]

- h. If the Permittee determines compliance with the emission standards in § 63.3320 by means other than determining the overall organic HAP control efficiency of a control device, the Permittee shall determine the organic HAP mass fraction of each coating material "as-purchased" by following one of the procedures in paragraphs (c)(1) through (3) of §63.3360 and the organic HAP mass fraction of each coating material "as-applied" by following the procedures in paragraph (c)(4) of §63.3360. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111, if the organic HAP mass fraction of each coating material "as-purchased" is not determined [§63.3360(c)].
- i. If the Permittee determines compliance with the emission standards in § 63.3320 by means other than determining the overall organic HAP control efficiency of a control device and the Permittee chooses to use the volatile organic content as a surrogate for the organic HAP content of the coatings, the Permittee shall determine the volatile organic content and coating solids content of each coating material "as-applied" as per §63.3360(d). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if volatile organic content and coating solids content of each coating material "as-applied" is not determined [§63.3360(d)].

Monitoring [15A NCAC 02Q .0508(f)]

- j. If the Permittee owns or operates web coating lines with intermittently controlled work stations, the Permittee shall monitor bypasses of the control device and the mass of each coating material applied at the work station during any such bypass. If using a control device for complying with the requirements of 40 CFR Part 63 Subpart JJJJ, the Permittee shall demonstrate that any coating material applied on a never controlled work station or an intermittently-controlled work station operated in bypass mode is allowed in his/her compliance demonstration according to § 63.3370(n) and (o). The bypass monitoring shall be

conducted using at least one of the procedures in §63.3350(c). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111, if the requirements in Section 2.2 B.1.j. are not met. [§63.3350(c)]

- k. For coating line No. 5 emission sources (**ID Nos. ES-33-5-01 and ES-33-5-FP**), coating line No. 6 emission sources (**ID Nos. ES-33-6-02**), coating line No. 7 emission sources (**ID Nos. ES-33-7-02**), coating line No. 8 emission sources (**ES-33-8-02, ES-33-8-04**), coating line No. 9 emission sources (**ID Nos. ES-33-09-02**), **Adhesive Coating Line No. 10 (ID No. ES-33-COAT10)**, Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**), and Pilot Coater No. 1 (**ID Nos. ES-33-0-01**) the Permittee has chosen to meet the requirements of liquid-liquid material balance in §63.3350(d)(2) to comply with emission standard in §63.3320(b)(3). The Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be certified by the manufacturer to be accurate within ± 2.0 percent by mass. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if a monitoring device is not installed, calibrated, maintained, and operated for determining cumulative amount of volatile matter recovered by the solvent recovery device over a monthly basis. [§63.3350(d)]
- l. For coating line No. 5 emission sources (**ID Nos. ES-33-5-01 and ES-33-5-FP**) and Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**), the Permittee may use thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**) to comply with emission standard in §63.3320(b)(3).
- i. For thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**), the Permittee shall install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every 3 months or the chart recorder, data logger, or temperature indicator shall be replaced. The Permittee shall replace the equipment whether he/she chooses not to perform the calibration or the equipment cannot be calibrated properly. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111, if the requirements in Section 2.2 B.1.i. are not met.
- ii. For thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**), the Permittee shall install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in degrees Celsius, or $\pm 1^0$ Celsius, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111, if the requirements in Section 2.2 B.1.1.ii. are not met. [§63.3350(e)]
- m. If the Permittee is complying with the emission standards in §63.3320 through the use of a capture system and control device for one or more web coating lines, the Permittee shall develop a site-specific monitoring plan containing the information specified in paragraphs (f)(1) and (2) of §63.3350 for these capture systems. The Permittee shall monitor the capture system in accordance with paragraph (f)(3) of §63.3350. The Permittee shall make the monitoring plan available for inspection by the permitting authority upon request.
- i. The monitoring plan must:
- (A) Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained; and
- (B) Explain why this parameter is appropriate for demonstrating ongoing compliance; and
- (C) Identify the specific monitoring procedures.
- ii. The monitoring plan shall specify the operating parameter value or range of values that demonstrate compliance with the emission standards in § 63.3320. The specified operating parameter value or range of values shall represent the conditions present when the capture system is being properly operated and maintained.
- iii. The Permittee shall conduct all capture system monitoring in accordance with the plan.
- iv. Any deviation from the operating parameter value or range of values, which are monitored according to the plan, will be considered a deviation from the operating limit.
- v. The Permittee shall review and update the capture system monitoring plan at least annually. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111, if the requirements in Section 2.2 B.1.m. are not met. [§63.3350(f)]

- n. The Permittee shall operate a capture system and control device such that the organic HAP emission rate for coating line No. 5 emission sources (**ID Nos. ES-33-5-01 and ES-33-5-FP**), coating line No. 6 emission sources (**ID Nos. ES-33-6-02**), coating line No. 7 emission sources (**ID Nos. ES-33-7-02**), coating line No. 8 emission sources (**ID Nos. ES-33-8-02, ES-33-8-4**), coating line No. 9 emission sources (**ID Nos. ES-33-09-02**), **Adhesive Coating Line No. 10 (ID No. ES-33-COAT10)**, Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**), and Pilot Coater No. 1 (**ID Nos. ES-33-0-01**) is limited to 0.20 kg organic HAP emitted per kg coating solids applied. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then the Permittee shall demonstrate compliance in accordance with the provisions of paragraph (n) of §63.3370. Otherwise the Permittee shall demonstrate compliance following the procedure in paragraph (i) of §63.3370 when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of §63.3370 when emissions are controlled by an oxidizer [§63.3370(f)].
- o. The Permittee shall determine organic HAP emissions for coating line No. 5 emission sources (**ID Nos. ES-33-5-01 and ES-33-5-FP**), coating line No. 6 emission sources (**ID Nos. ES-33-6-03, and ES-33-6-04**), and coating line No. 8 emission sources (**ID Nos. ES-33-8-02 and ES-33-8-4**) by performing a monthly *liquid-liquid material balance for solvent recovery devices* (**ID Nos. CD-33-6-10 and CD-33-8-10**), in accordance with the paragraphs (i)(1)(ii) through (vii) and (o) of §63.3370.
- If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c) [§63.3370(i)(1)(ii)].
 - Determine the volatile organic content of each coating material as-applied during the month following the procedure in §63.3360(d) [§63.3370(i)(1)(iii)].
 - If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in § 63.3360(d) [§63.3370(i)(1)(iv)].
 - Determine and monitor the amount of volatile organic matter recovered for the month according to the procedures in §63.3350(d) [§63.3370(i)(1)(v)].
 - Recovery efficiency*. Calculate the volatile organic matter collection and recovery efficiency using Equation 7 in §63.3370: [§63.3370(i)(1)(vi)]

$$R_v = \frac{M_{vr} + M_{vret}}{\sum_{i=1}^p C_{vi} M_i + \sum_{i=1}^q C_{vij} M_{ij}} \times 100 \quad \text{Eq. 7}$$

Where:

R_v = Organic volatile matter collection and recovery efficiency, percent.

M_{vr} = Mass of volatile matter recovered in a month, kg.

M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

p = Number of different coating materials applied in a month.

C_{vi} = Volatile organic content of coating material, i , expressed as a mass fraction, kg/kg.

M_i = Mass of as-purchased coating material, i , applied in a month, kg.

q = Number of different materials added to the coating material.

C_{vij} = Volatile organic content of material, j , added to as-purchased coating material, i , expressed as a mass fraction, kg/kg.

M_{ij} = Mass of material, j , added to as-purchased coating material, i , in a month, kg.

- vi. *Organic HAP emitted.* Calculate the organic HAP emitted during the month using Equation 8 in §63.3370: [§63.3370(i)(1)(vii)]

$$H_e = \left[1 - \frac{R_v}{100} \right] \left[\sum_{i=1}^p C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} - M_{vret} \right] \quad \text{Eq. 8}$$

Where:

- H_e = Total monthly organic HAP emitted, kg.
 R_v = Organic volatile matter collection and recovery efficiency, percent.
 p = Number of different coating materials applied in a month.
 C_{hi} = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.
 M_i = Mass of as-purchased coating material, i, applied in a month, kg.
 q = Number of different materials added to the coating material.
 C_{hij} = Organic HAP content of material, j, added to as-purchased coating material, i.e., expressed as a mass fraction, kg/kg.
 M_{ij} = Mass of material, j, added to as purchased coating material, i, in a month, kg.
 M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

- vii. *Never-controlled work stations.* The Permittee shall determine mass of all coating materials as-applied on never-controlled work station (**ID No. ES-33-5-FP**) during the month [40 CFR 63.3370(o)(1)].
viii. Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in a controlled mode and the mass of all coating materials applied on always-controlled work stations during the month [40 CFR 63.3370(o)(2)].
ix. *Liquid material balance compliance demonstration.* For each web coating line or group of web coating lines for which the Permittee uses the provisions of paragraph (n)(1)(ii) of §63.3370, the Permittee shall calculate the organic HAP emitted during the month using Equation 14 in §63.3370 as specified below: [§63.3370 (o)(3)];

$$H_e = \left[\sum M_{ci} C_{ahi} \left[1 - \frac{R_v}{100} \right] + \left[\sum M_{Bi} C_{ahi} \right] - M_{vret} \right] \quad \text{Eq. 14}$$

Where:

- H_e = Total monthly organic HAP emitted, kg.
 p = Number of different coating materials applied in a month.
 M_{ci} = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always controlled work stations in a month, kg.
 C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.
 R_v = Organic volatile matter collection and recovery efficiency, percent.
 M_{Bi} = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in by-pass mode and the mass of coating materials, i, as-applied on never-controlled work stations, in a month, kg.
 C_{ahi} = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.
 M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

[§63.3370(n)(1)(ii)]

- p. The Permittee shall determine the organic HAP emissions for coating line No. 5 emission sources (**ID Nos. ES-33-5-01**) and Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**) when controlled by *thermal oxidizers* (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**), in accordance with the procedures in paragraph (k)(1)(i) through (vi) of §63.3370.
- Determine the oxidizer destruction efficiency using the procedure in § 63.3360(e).
 - Determine the capture system capture efficiency in accordance with § 63.3360(f).
 - Capture and control efficiency monitoring.* Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with § 63.3350(e) and (f) to ensure capture and control efficiency.
 - If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common oxidizer during the month.
 - If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as applied during the month following the procedure in §63.3360(c).
 - If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).
- [§63.3370(n)(3)(iii)(A)]
- q. As an alternative to the compliance procedure in §63.3370(n)(3)(iii)(A) as specified in Section 2.2 B.1.p. above for coating line No. 5 emission sources (**ID Nos. ES-33-5-01**) and Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**) when controlled by thermal oxidizers (**ID Nos. CD-33-56-RTO and CD-36-RTO-1**), the Permittee is allowed to use the compliance procedure in §63.3370(n)(4) [Section 2.2 B.1.r. below] to determine organic HAP emissions from coating line No. 5 emission sources (**ID Nos. ES-33-5-01**)-and Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**).
- r. The Permittee **shall** determine organic HAP applied to *uncontrolled coating lines*, i.e., coating line No. 7 emission sources (**ID Nos. ES-33-7-02**), coating line No. 9 emission sources (**ID Nos. ES-33-09-02**) Pilot Coater No. 1 (**ID Nos. ES-33-0-01**), and Adhesive Coating Line No. 10 (**ID No. ES-33-COAT10**) using the Equation 6 of §63.3370. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.

The Permittee **may** determine organic HAP applied to coating line No. 5 emission sources (**ID Nos. ES-33-5-01**) and Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**), using the Equation 6 of §63.3370. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.

$$H_m = \sum_{i=1}^p C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} - M_{\text{vret}} \quad \text{Eq. 6}$$

Where:

H_m = Total monthly organic HAP applied, kg.

p = Number of different coating materials applied in a month.

C_{hi} = Organic HAP content of coating material, i , as-purchased, expressed as a mass fraction, kg/kg.

M_i = Mass of as-purchased coating material, i , applied in a month, kg.

q = Number of different materials added to the coating material.

C_{hij} = Organic HAP content of material, j , added to as-purchased coating material, i , expressed as a mass fraction, kg/kg.

M_{ij} = Mass of material, j, added to as purchased coating material, i, in a month, kg.
 M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where the Permittee choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in § 63.3370.

[§63.3370(n)(4)]

- s. The Permittee shall convert the information obtained under paragraph (n)(1) through (4) of §63.3370 into the unit of the selected compliance options using the calculation procedures specified in paragraphs (n)(5)(i) through (iv) of §63.3370.
- i. *Organic HAP emitted.* Calculate the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (n)(1), (2)(ii), 3(iii), and (4) of §63.3370.
 - ii. *Coating solids applied.* If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(d).
 - iii. *Organic HAP emission rate based on coating solids applied.* Calculate the organic HAP emission rate based on coating solids applied using Equation 9 in §63.3370 as shown below:

$$L = \frac{H_e}{\sum_{i=1}^p C_{si}M_i + \sum_{j=1}^q C_{sij}M_{ij}} \quad \text{Eq. 9}$$

Where:

L = Mass organic HAP emitted per mass of coating solids applied, kg/kg.
 H_e = Total monthly organic HAP emitted, kg.
 p = Number of different coating materials applied in a month.
 C_{si} = Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.
 M_i = Mass of as-purchased coating material, i, applied in a month, kg.
 q = Number of different materials added to the coating material.
 C_{sij} = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.
 M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

- t. The Permittee shall be deemed in noncompliance with the emission standards in §63.3320(b) for the month if all operating parameters required to be monitored under paragraphs (n)(1) through (3) of §63.3370 were not maintained at the values established under §63.3350 and §63.3360, and the organic HAP emission rate based on coating solids applied exceeds 0.20 kg organic HAP per kg coating solids applied.
 [§63.3370(n)(5)]

Recordkeeping [15A NCAC 02Q .0508(f)]

- u. For coating line No. 5 emission sources (**ID Nos. ES-33-5-01 and ES-33-5-FP**), coating line No. 6 emission sources (**ID Nos. ES-33-6-03, and ES-33-6-04**), coating line No. 7 emission sources (**ID Nos. ES-33-7-02**), coating line No. 8 emission sources (**ID Nos. ES-33-8-02, ES-33-8-4**), coating line No. 9 emission sources (**ID Nos. ES-33-09-02**), Adhesive Coating Line No. 10 (**ID No. ES-33-COAT10**), Highland Plant coating line emission sources (**ID Nos. ES-36-CL-1**), and Pilot Coater No. 1 (**ID Nos. ES-33-0-01**) the Permittee shall maintain the following records specified in §63.3410(a)(1) on a monthly basis in accordance with the requirements of §63.10(b)(1):
- i. Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance with this standard, including:
 - (A) Control device and capture system operating parameter data in accordance with the requirements of §63.3350(c), (e), and (f);
 - (B) Organic HAP content data for the purpose of demonstrating compliance in accordance with the

- requirements of §63.3360(c);
 - (C) Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(d);
 - (D) Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of §63.3360(e) and (f); and
 - (E) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of §63.3370(b), (c), and (d).
- ii. Records specified in §63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of §63.3350(b).
 - iii. The Permittee shall maintain records of all liquid-liquid material balances performed in accordance with the requirements of §63.3370. The records must be maintained in accordance with the requirements of §63.10(b).
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the records in Section 2.2 B.1.u.i. through iii. above are not maintained.
[§63.3410]

Reporting [15A NCAC 02Q .0508(f)]

- v. The Permittee shall submit a semiannual compliance report in accordance with the requirements in §63.3400(c).
- w. The Permittee shall submit a Notification of Performance Tests as specified in §§ 63.7 and 63.9(e), and in accordance with the requirements in §63.3400(d), if the Permittee is complying with the emission standard using a control device and the Permittee is required to conduct a performance test of the control device.
- x. The Permittee submitted a Notification of Compliance Status as specified in §63.9(h) and in accordance with §63.3400(e) on July 28, 2006.
- y. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

C. Adhesive Liquid Raw Material Storage Tanks (ES-33ST-1)

Solvent-Based Adhesive Mixers and Storage Tanks (ES-33-1-01)

Solvent and Resin Storage Tanks (ES-33-2-45ST)

One Solvent Based Coating Storage Tanks (ES-33-52)

Resin Storage Tanks (ES-33-2-43)

Bulk Resin System including Mixing Tank (ES-33-RS)

Mixing Tanks (ES-33-SPC-MT1)

Toluene Transfer Racks (ES-33-TST-TR1)

Solvent Based Resin Transfer Racks (ES-33-SBPRT-TR1)

One Petroleum Resin Transfer Rack (ES-33-PRT-TR1)

Two Fill Ports (ES-33-SBPRT-TR3 and ES-33-SBPRT-TR4)

Storage Tanks (IES-36-WBST1)

1. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY [MACT SUBPART EEEE]

- a. For the sources listed in Section 2.2 C above, the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111 “Maximum Achievable Control Technology” (MACT) as promulgated in 40 CFR Part 63, Subpart EEEE “National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline),” including Subpart A “General Provisions.” [15A NCAC 02D .1111]
- b. For the sources listed in Section 2.2 C above, the Permittee is not required to comply with the control requirements (i.e. the emission limitations, operating limits, and work practice standards) found in 40 CFR Part 63, Subpart EEEE. For these sources the Permittee is only required to comply with the notification, recordkeeping, and reporting requirements in Sections 40 CFR §63.2343(a) through (d). [40 CFR 63.2343]

Recordkeeping and Reporting [15A NCAC 02Q .0508(f)]

- c. For each storage tank having a capacity of less than 18.9 cubic meters (5,000 gallons) and each transfer rack that only unloads organic liquids (i.e., no organic liquids are loaded at the transfer rack) listed in Section 2.2 C, above, the Permittee shall keep documentation that verifies that each storage tank and transfer rack is not required to be controlled pursuant to Sections 40 CFR §63.2346(a) and (b). [40 CFR §63.2343(a)]
- d. The documentation shall be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and shall be in a form suitable and readily available for expeditious inspection and review according to 40 CFR §63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in 40 CFR §63.2338(a) on a plant site plan or process and instrumentation diagram (P&ID). [40 CFR §63.2343(a)]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not kept.
- e. For each storage tank subject to 40 CFR Part 63, Subpart EEEE, having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in items 1 through 6 of Table 2 of 40 CFR Part 63, Subpart EEEE, the Permittee shall comply with the requirements specified in Sections 2.2 C.1.e.i through iii, as applicable. [40 CFR §63.2343(b)]
 - i. As required under 40 CFR 63.2343(b)(1), the Permittee submitted a Notification of Compliance Status and a first Compliance report on June 7, 2006. Existing storage tanks consolidated with similar sources in Permit 02218T36 in Section 2.2 C. above have met the Notification of Compliance Status requirements.
 - ii. The Permittee shall submit a subsequent Compliance report according to the schedule in Section 40 CFR §63.2386(b) whenever any of the events in Section 40 CFR §63.2343(d) occur, as applicable. The subsequent Compliance reports shall contain the information in paragraphs 40 CFR §63.2386(c)(1), (2), (3) and, as applicable, in paragraphs 40 CFR §63.2386(d)(3) and (4).
If the Permittee is already submitting a subsequent Compliance report under Section 40 CFR §63.2386(d), the Permittee does not need to submit a separate subsequent Compliance report for each storage tank that meets the conditions identified in Section 40 CFR §63.2343(b) (i.e., a single subsequent Compliance report should be submitted for the storage tanks).
 - iii. For each storage tank that meets the conditions identified in Section 40 CFR §63.2343(b), the Permittee shall keep documentation, including a record of the annual average true vapor pressure of the total organic HAP (as listed in Table 1 of 40 CFR Part 63, Subpart EEEE) in the stored organic liquid, that verifies the storage tank is not required to be controlled under 40 CFR Part 63, Subpart EEEE. The documentation shall be kept up-to-date and be in a form suitable and readily available for expeditious inspection and review according to 40 CFR §63.10(b)(1), including records stored in electronic form in a separate location. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not kept.
- f. For each transfer rack subject to 40 CFR Part 63, Subpart EEEE that loads organic liquids but is not subject to control based on the criteria specified in items 7 through 10 of Table 2 of 40 CFR Part 63, Subpart EEEE, the Permittee shall comply with the requirements of Sections 2.2 C.1.f.i through iii, as applicable. [40 CFR §63.2343(c)]
 - i. As required under 40 CFR 63.2343(c)(1), the Permittee submitted a Notification of Compliance Status and a first Compliance report on June 7, 2006. Existing transfer racks consolidated with similar

- sources in Permit 02218T36 in Section 2.2 C. above have met the Notification of Compliance Status requirements.
- ii. The Permittee shall submit a subsequent Compliance report according to the schedule in Section 40 CFR §63.2386(b) whenever any of the events in Section 40 CFR §63.2343(d) occur, as applicable. The subsequent Compliance reports shall contain the information in paragraphs 40 CFR §63.2386(c)(1), (2), (3) and, as applicable, in paragraphs 40 CFR §63.2386(d)(3) and (4).
If the Permittee is already submitting a subsequent Compliance report under Section 40 CFR §63.2386(d), the Permittee does not need to submit a separate subsequent Compliance report for each transfer rack that meets the conditions identified in Section 40 CFR §63.2343(c) (i.e., a single subsequent Compliance report should be submitted for the transfer racks).
 - iii. For each transfer rack that meets the conditions identified in Section 40 CFR §63.2343(c), the Permittee shall keep documentation, including the records specified in Section 40 CFR §63.2390(d) that verifies the transfer rack is not required to be controlled under 40 CFR Part 63, Subpart EEEE. The documentation shall be kept up-to-date and be in a form suitable and readily available for expeditious inspection and review according to 40 CFR §63.10(b)(1), including records stored in electronic form in a separate location. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not kept.
 - g. If one or more of the events identified in Section 2.2 C.1.g.i through iv occur since the filing of the Notification of Compliance Status or the last Compliance report, the Permittee shall submit a subsequent Compliance report as specified in paragraphs 40 CFR §63.2343(b)(2) and (c)(2). [40 CFR §63.2343(d)]
 - i. Any storage tank or transfer rack became subject to control under 40 CFR Part 63, Subpart EEEE; or
 - ii. Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of 40 CFR Part 63, Subpart EEEE; or
 - iii. Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or
 - iv. Any of the information required in 40 CFR §63.2386(c)(1) through (3) has changed.
 - h. The Permittee shall submit a summary report of the recordkeeping activities postmarked or delivered on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. Hickory Plant Coating Line No. 5 (ES-33-5-01) and associated Carbon Adsorption System (CD-33-6-10) or Regenerative Thermal Oxidizer (CD-33-56-RTO)

Hickory Plant Coating Line No. 5 Flexographic Printer (ES-33-5-FP)

Hickory Plant Coating Line No. 8 (ES-33-8-02) and associated Nitrogen Inert Solvent Recovery System (CD-33-8-10) or Carbon Adsorption Systems (CD-33-6-10)

Hickory Plant Coating Line No. 8 (ES-33-8-04) and associated Carbon Adsorption Systems (CD-33-6-10)

Hickory Plant Coating Line No. 9 (ES-33-09-02)

Hickory Plant Pilot Coater No. 1 (ES-33-0-01)

Hickory Plant Pilot Coater No. 2 (ES-33-PC-2)

Pilot-scale Research and Development Calender (ES-PD1-CAL1)

Hickory Plant Adhesive Coating Line No. 10 (ES-33-COAT10)

Highland Plant Coating Line (ES-36-CL-1) and associated Regenerative Thermal Oxidizer (CD-36-RTO-1)

1. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS [NSPS SUBPART RR]

- a. For the sources listed in Section 2.2 D above, the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart RR, "Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations," including Subpart A, "General Provisions." [15A NCAC 02D .0524]

Limits/Standards [40 CFR 60.440(b)]

- b. To avoid applicability to the emission limits in 40 CFR 60.442(a) of NSPS Subpart RR, as requested by the Permittee, VOC as applied in coatings to the coaters for sources listed in Section 2.2 D above shall be less than 45 Mg (50 tons) per 12 month period, calculated each month for the previous twelve (12) months. Otherwise, if Sources listed in Section 2.2 D. above exceed 45 Mg (50 tons) per 12 month period, calculated each month for the previous twelve (12) months, they are subject to the requirements of all other applicable sections of NSPS Subpart RR.
- c. If the amount of VOC input exceeds 45 Mg (50 tons) per 12 month period, the coating line shall become subject to the emission limits in 40 CFR 60.442(a), and on and after the date on which the performance test required by 40 CFR 60.8 has been completed, the Permittee shall:
- cause the discharge into the atmosphere from an affected facility not more than 0.20 kg VOC/kg of coating solids applied as calculated on a weighted average basis for one calendar month; or
 - demonstrate for each affected facility a 90 percent overall VOC emission reduction as calculated over a calendar month; or
 - demonstrate the percent overall VOC emission reduction specified in 40 CFR 60.443(b) as calculated over a calendar month.

Compliance [40 CFR 60.443]

- d. To determine compliance with 40 CFR 60.442, the Permittee shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures:
- Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24 or by the coating manufacturer's formulations data.
 - Compute the weighted average by the equation found in 40 CFR 60.443(a)(2).
 - For each affected facility where the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month (G) is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1). If G is greater than 0.20 kg VOC per kg of coating solids applied, compliance must be documented with 40 CFR 60.442(a)(2).
- e. To determine compliance with 40 CFR 60.442(a)(2), the Permittee shall calculate the required overall VOC emission reduction (Rq) according to the equation found in 40 CFR 60.443(b). If Rq less than or equal to 90 percent, then the required overall VOC emission reduction is Rq. If Rq is greater than 90 percent, then the required overall VOC emission reduction is 90 percent.
- f. Where compliance with the emission limits specified in 40 CFR 60.442(a)(2) is achieved through the use of a solvent recovery system, the Permittee shall determine the overall VOC emission reduction for a one month period (R) by the equation specified in 40 CFR 60.443(c). If the R value is equal to or greater than the Rq value as specified in Section 2.2 D.1.e. above, then compliance with 40 CFR 60.442(a)(2) is demonstrated.
- g. Where compliance with the emission limits specified in 40 CFR 60.442(a)(2) is achieved through the use of a solvent destruction device, the Permittee shall determine calendar monthly compliance by comparing the Rq value as specified in Section 2.2. D.1.e. above to the overall VOC emission reduction demonstrated in the most recent performance test that complied with 40 CFR 60.442(a)(2). If the Rq value is less than or equal to the overall VOC reduction of the most recent performance test, the affected facility is in

compliance with 40 CFR 60.442(a)(2).

- h. Where compliance with 40 CFR 60.442(a)(2) is achieved through the use of a solvent destruction device, the Permittee shall continuously record the destruction device combustion temperature during coating operations for thermal incineration destruction devices. For thermal incineration destruction devices the Permittee shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28°C (50°F) below the average temperature of the device during the most recent performance test complying with 40 CFR 60.442(a)(2). Due to the process of auto-therming, the RTO operating temperature was established as 1500 °F, with 1450 °F being the compliance temperature, above which all three-hour average temperature must remain. The Permittee can reestablish the minimum temperature set point upon retesting and update the permit operating limits as a minor modification in accordance with 15A NCAC 02Q .0515. The permittee may operate within 10% of the current temperature setpoint during testing to reset the operating limits as long as the emission limit is maintained during testing.
- i. After the initial performance test required for all affected facilities under 40 CFR 60.8, compliance with VOC emission limitation and percentage reduction requirements under 40 CFR 60.442 is based on the average emission reduction for one calendar month. A separate compliance test is completed at the end of each calendar month after the initial performance test, and a new calendar month's average VOC emission reduction is calculated to show compliance with the standard.
- j. If a common emission control device is used to recover solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the affected facility (or facilities), for the purpose of compliance, shall be determined as specified in 40 CFR 63.443(h).
- k. If a common emission control device(s) is used to destruct solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the affected facility (or facilities), for the purpose of compliance, shall be determined as specified in 40 CFR 63.443(i).
- l. Emissions from startups and shutdowns are to be included when determining if the standard specified at 40 CFR 60.442(a)(2) is being attained.

Performance Tests – [40 CFR 60.444]

- m. The performance test for affected facilities complying with 40 CFR 60.442 without the use of add-on controls shall be identical to the procedures specified in Section 2.2 D.1.d..
- n. The performance test for affected facilities controlled by a solvent recovery device shall be conducted as follows:
 - i. The performance test shall be a one calendar month test and not the average of three runs as specified in 40 CFR 60.8(f).
 - ii. The weighted average mass of VOC per mass of coating solids applied for a one calendar month period shall be determined as specified in 40 CFR 60.443(a) (1) and (2).
 - iii. Calculate the required percent overall VOC emission reduction as specified in 40 CFR 60.443(b).
 - iv. Inventory VOC usage and VOC recovery for a one calendar month period.
 - v. Determine the percent overall VOC emission reduction (R) as specified in 40 CFR 60.443(c).
 - vi. For each affected facility where the value of R is greater than or equal to the value of R_q calculated in 40 CFR 60.443(b), compliance with 60.442(a)(2) is demonstrated. Where the value of R is not greater than or equal to the value of R_q calculated in 60.443(c), the Permittee shall be deemed in non-compliance with 15A NCAC 02D.0524.
- o. The performance test for affected facilities controlled by a solvent destruction device shall be conducted as follows:
 - i. The performance of the solvent destruction device shall be determined by averaging the results of three test runs as specified in 40 CFR 60.8(f).
 - ii. Determine for each affected facility prior to each test run the weighted average mass of VOC per mass of coating solids applied being used at the facility. The weighted average shall be determined as specified in 40 CFR 60.443(a). In this application the quantities of W_{oi}, W_{si}, and M_{ci} shall be determined for the time period of each test run and not a calendar month as specified in 40 CFR 60.441.
 - iii. Calculate the required percent overall VOC emission reduction as specified in 40 CFR 60.443(b).
 - iv. Determine the percent overall VOC emission reduction (R) of the solvent destruction device with equation and procedures in 40 CFR 60.444(c)(4).
 - v. For each affected facility where the value of R is greater than or equal to the value of R_q calculated in

40 CFR 60.443(b), compliance with 40 CFR 60.442(a)(2) is demonstrated. Where the value of R is not greater than or equal to the value of R_q calculated in 40 CFR 60.443(b), the Permittee shall be deemed in non-compliance with 15A NCAC 02D.0524.

Monitoring and Recordkeeping – [40 CFR 60.445]

- p. To assure that the VOC content of coatings applied is less than 45 Mg (50 tons) per 12 month period as specified in Section 2.2 D.1.b. above, the Permittee shall maintain a calendar month record of the amount of VOC applied in the coating [40 CFR 60.445(d)].
- q. The Permittee shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR 60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.
- r. If the Permittee elects to document compliance with the options listed in 40 CFR 60.442(a)(2) using a solvent destruction device, the Permittee shall maintain a calendar month record of the amount of solvent applied in the coating at each affected facility.
- s. If the Permittee elects to document compliance with the options listed in 40 CFR 60.442(a)(2) using a solvent destruction device, the Permittee shall install, calibrate, maintain, and operate a monitoring device for indicating the cumulative amount of solvent recovered by the device over a calendar month period. The monitoring device shall be accurate within ± 2.0 percent. The owner or operator shall maintain a calendar month record of the amount of solvent recovered by the device.
- t. If the Permittee elects to document compliance with the options listed in 40 CFR 60.442(a)(2) using a thermal incineration solvent destruction device, the Permittee shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or ± 2.5 °C.
- u. If the Permittee elects to document compliance with the options listed in 40 CFR 60.442(a)(2) using a solvent destruction device which uses a hood or enclosure to capture fugitive VOC emissions, the Permittee shall install, calibrate, maintain, and operate a monitoring device which continuously indicates that the hood or enclosure is operating. No continuous monitor shall be required if the Permittee can demonstrate that the hood or enclosure system is interlocked with the affected facility's oven recirculation air system. This monitoring and recordkeeping is not required for adhering to the compliance option listed in 40 CFR 60.442(a)(1).
- v. The records of measurements required in 40 CFR 60.443 and 40 CFR 60.445 shall be maintained in a logbook (written or electronic form) on site and made available to an authorized representative upon request. The Permittee shall maintain copies of the records for at least two years following the date of the measurements, per 40 CFR 60.445(h).
- w. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the Permittee fails to perform all applicable requirements found in Sections 2.2.D.1.p through v above.

Test Methods and Procedures – [40 CFR 60.446]

- x. The VOC content per unit of coating solids applied and compliance with 60.442(a)(1) shall be determined by either Reference Method 24 and the equation specified in 60.443 or by the manufacturer's formulation data. In the event of any inconsistency between Reference Method 24 and manufacturer's formulation data, the Reference Method 24 test will govern. The Administrator may require the Permittee to perform Reference Method 24 tests during such months as he deems appropriate. For Reference Method 24, the coating sample must be a one-liter sample taken into a one-liter container at a point where the sample will be representative of the coating applied to the web substrate.
- y. If the Permittee elects to document compliance with the options listed in 40 CFR 60.442(a)(2), Reference Method 25 shall be used to determine the VOC concentration, in parts per million by volume, of each effluent gas stream entering and exiting the solvent destruction device or its equivalent, and each effluent gas stream emitted directly to the atmosphere. Reference Methods 1, 2, 3 and 4 shall be used to determine the sampling location, volumetric flowrate, molecular weight, and moisture of all sampled gas streams. For Reference Method 25, the sampling time for each of the three runs must be at least 1 hour. The minimum sampling volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variable or other factors, may be approved by the Administrator. This testing is not required for adhering to the compliance option listed in 40 CFR 60.442(a)(1).
- z. If the Permittee can demonstrate to the Administrator's satisfaction that testing of representative stacks

yields results comparable to those that would be obtained by testing all stacks the Administrator will approve testing of representative stacks on a case-by-case basis.

- aa. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the Permittee fails to perform all applicable requirements found in Sections 2.2.D.1.x through z above.

Reporting – [15A NCAC 02Q .0508(f) and 40 CFR 60.447]

- bb. As specified in 40 CFR 60.447, the Permittee shall report the following:
- i. For all affected facilities subject to compliance with 40 CFR 60.442, the performance test data and results from the performance test shall be submitted to the administrator as specified in 40 CFR 60.8(a) of the General Provisions (40 CFR 60, Subpart A).
 - ii. Following the initial performance test, the Permittee shall submit quarterly reports to the Administrator of exceedances of the VOC emission limits specified in 40 CFR 60.442. If no such exceedances occur during a particular quarter, a report stating this shall be submitted to the Administrator semi-annually as specified in cc. below.
 - iii. If the Permittee elects to document compliance with the options listed in 40 CFR 60.442(a)(2), the Permittee shall also submit reports at the frequency specified in 40 CFR 60.7(c) when the incinerator temperature drops as defined in 40 CFR 60.443(e). If no such periods occur, the Permittee shall state this in the report. This reporting is not required for adhering to the compliance option listed in 40 CFR 60.442(a)(1).
- cc. The Permittee shall submit a summary report of the monitoring and recordkeeping activities on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2.3 - Actuals PAL Permit for VOC

a. The following Actuals Plantwide Applicability Limitations (Actuals PAL) shall not be exceeded:

Actuals Plantwide Applicability Limitations	
PAL Pollutant	VOC
Actuals PAL	865 in tons per rolling 12-months
Effective Date	July 1, 2011
Expiration Date	June 30, 2021
PAL Emissions Units	<p>Hickory Plant Solvent-Based Coating Lines 5, 6, and 8 ES-33-5-01, ES-33-8-02, and ES-33-8-04</p> <p>Hickory Plant Raw Material Storage Tanks and Mixers ES-33-1-01 and ES-33-52</p> <p>Bulk Resin System including Mixing Tank ES-33-RS</p> <p>Mixing Tanks ES-33-SPC-MT1</p> <p>Carbon Adsorption Systems CD-33-6-10 and CD-33-8-10</p> <p>Hickory Plant Raw Material Storage Tanks ES-33-2-45ST and ES-33-2-43</p> <p>Liquid Material Storage Tanks ES-33ST-1</p> <p>Toluene Transfer Racks ES-33-TST-TR1</p> <p>Solvent-based Resin Transfer Racks ES-33-SBPRT-TR1</p> <p>Fill Ports ES-33-SBPRT-TR3 and ES-33-SBPRT-TR4</p> <p>Hickory Plant Water-based Coating Lines ES-33-6-02, ES-33-07-02, and ES-33-09-02</p> <p>Hickory Plant Pilot Coaters ES-33-0-01 and ES-33-PC-2</p> <p>Hickory Plant Coating Lines 5 (Specialty Chemicals) ES-33-5-01</p> <p>Pilot-scale Research and Development Calender ES-PD1-CAL1</p>

Actuals Plantwide Applicability Limitations	
	<p>Hickory Plant Adhesive Coater ES-33-COAT10 IES-33-DRUMUNLOAD IES-33-ADMIX</p> <p>Hickory Plant Raw Material Storage Tanks and Mixers (Specialty Chemicals) ES-33-1-01, ES-33-2-45ST, and ES-33-52</p> <p>Hickory Plant Water-based Storage Tanks IES-33-IT-WB and IES-27-WB1</p> <p>Hickory Plant Other Storage Tanks ES-33-PRT-TR1, ES-ST-25, IES-POTank, and IES-33TG016(55)</p> <p>Rubber Grinding and Conveying Operations ES-33-15-02</p> <p>Boilers and Other Combustion Sources ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-TEMP, ES-36-BLR-B1, ES-33-5-01, ES-33-6-02, ES-33-07-02, ES-33-09-02, ES-36-CL-1, IES-R&D-Gen, ES-GEN1, ES-GEN2, CD-33-56-RTO and CD-36-RTO-1</p> <p>Highland Plant Coating Line ES-36-CL-1 and CD-36-RTO-1</p> <p>Highland Plant Storage Tanks IES-36-IT-1, IES-36-WBST1</p> <p>Highland Plant Other Storage Tanks IES-36-POST-1 and IES-36-MRT-1</p> <p>Flexographic Printers ES-33-5-FP</p> <p>Mixing Area Parts Washers ES-33-2-49</p> <p>Maintenance Area Parts Washers ES-33-MSPW1, ES-27-MSPW1, ES-36-MSPW1 and ES-F-PW1</p> <p>Groundwater Remediation System IES-33-GR</p> <p>Fragrance Application Equipment IS-FAE</p> <p>Other Sources ES-33-RDSB, ES-GPC, ES-R&DPRN1, ES-R&DPRN2, ES-36-TK-PET, IES-36- BM-1, IS-PD1-EX1 IES-36-BM-2, and IES-33-WEBTREAT</p>

- a. The Permittee may make modifications or additions to the PAL emissions units in Section 2.3 a. above, without requiring a modification to the PAL provisions of this permit if the emissions from the modified or additional emissions units will be calculated according to the monitoring methods specified in Section 2.3 j.

through m. below and the actual plantwide VOC emissions will remain less than 865 tons per rolling 12 months.

- b. If the Permittee applies to renew the PAL permit in accordance with §51.166(w)(10) before the end of the PAL effective period in Section 2.3 a. above, then the PAL permit shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the DAQ. [§51.166(w)(7)(iii)]
- c. Once the PAL permit expires, the Permittee is subject to the requirements in §51.166(w)(9). Upon PAL permit expiration, the DAQ shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each PAL emissions unit, as the DAQ determines is appropriate. The DAQ will retain the ultimate discretion to decide whether and how the allowable emissions will be allocated. [§51.166(w)(7)(v)]

Testing [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this testing indicate that the VOC emissions on a 12-month rolling basis have exceeded the actual PAL in Section 2.3 a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- e. The Permittee shall revalidate the emission factors and any other data used in Section 2.3 j. through m. below for calculations of VOC emissions through performance testing or other scientifically valid means approved by the DAQ. The Permittee shall perform such revalidation once every five years after the issuance of the PAL permit, in accordance with General Condition JJ. If the Permittee does not perform this revalidation, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530. If any emission factors included in Section 2.3 are revised, the applicable provision of the PAL permit may be modified through a modification to the permit to reflect the results of a revalidation. The Permittee shall not rely on the updated emission factors until they are approved by DAQ and incorporated into the permit. [§51.166(w)(12)(ix)]

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- f. The Permittee shall record rubber throughput on a monthly basis for the grinding and conveying PAL emissions unit. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.
- g. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amounts of natural gas and propane burned in the boilers, drying ovens, and RTOs. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the amounts of fuels burned in the boilers, drying ovens, and RTOs are not monitored.
- h. The Permittee shall keep monthly records in a logbook (written or electronic format) of hours of operation for each emergency generator. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.
- i. The Permittee shall include in emissions calculations for compliance purposes, emissions from startups, shutdowns, and malfunctions in Section 2.3.j. through m. below. [§51.166(w)(7)(iv)]
- j. For mass balance calculations for any PAL emissions unit, utilizing coating or solvents, the Permittee shall provide a demonstrated means of validating the published content of VOC that is contained in or created by all materials used in or at the PAL emissions units. The Permittee shall assume that the VOC content is either 100 percent or obtain from the vendor of the material a certificate of analysis confirming the VOC content included in the material safety data sheet (MSDS) or use formulation data. If the vendor of the material provides a range of VOC content for such material, the Permittee shall use the highest value of the range to calculate the VOC emissions unless the DAQ approves the site-specific data (such as Method 24 analysis) showing that another value in the range is more appropriate.

i. Solvent Recovery System

- (A) The Permittee shall perform mass balance calculations for VOC per month after the end of each month for the following PAL emissions units, (which are) utilizing the solvent toluene: Hickory Plant Toluene-Based Coating Lines 5, 6, and 8, Hickory Plant Raw Material Storage Tanks and Mixers, Bulk Resin System including Mixing Tank, Mixing Tanks, Carbon Adsorption Systems, Hickory Plant Raw Material Storage Tanks, Toluene Transfer Racks, Solvent-based Resin Transfer Racks, Fill Ports, and Mixing Area Parts Washers.

VOC emissions per month shall be determined as per the following equation:

VOC, tons/month = toluene purchases and returns for the month + toluene inventory at the beginning of month - toluene inventory at the end of month

- (B) Remaining VOC emissions (VOC containing raw materials other than toluene) from the PAL emissions units in Section 2.3 j. i. (A) above, shall be calculated utilizing the following MACT calculations methodology, as included in Section 2.2 C. above.

The Permittee shall monitor the usage rates and VOC concentration of each material used in Hickory Plant Toluene-Based Coating Lines 5, 6, and 8. VOC emissions shall be determined by multiplying the total amount of each type of VOC containing material consumed during the month, by the VOC content of each material.

ii. Other Coating Lines and Associated Tanks

- (A) The Permittee shall perform mass balance calculations for VOC per month after the end of each month for the following PAL emissions units: Hickory Plant Water-based Coating Lines, Hickory Plant Pilot Coaters, Hickory Plant Coating Lines 5 and 6 (Specialty Chemicals), Hickory Plant Adhesive Coating Line No. 10 (ES-33-COAT10), Hickory Plant Raw Material Storage Tanks and Mixers (Specialty Chemicals), Mixed Solvent Raw Material Storage Tanks, Hickory Plant Water-based Storage Tanks, Hickory Plant Other Storage Tanks, Highland Plant Coating Line, Highland Plant Water-based Storage Tanks, Highland Plant Other Storage Tanks, Flexographic Printers, and Fragrance Application Equipment.

- (1) VOC emissions from the PAL emissions units excluding Hickory Plant Pilot Coaters in Section 2.3 j. ii. (A) above shall be calculated utilizing the following MACT calculations methodology, as included in Section 2.2 B. above.

The Permittee shall monitor the usage rates and VOC concentration of each material used in Hickory Plant Toluene-Based Coating Lines 5 and 6 (Specialty Chemicals), and Highland Plant Coating Line. VOC emissions shall be determined by multiplying the total amount of each type of VOC containing material consumed during the month, by the VOC content of each material.

The Permittee shall apply a control efficiency of RTO based upon the most recent performance test in Section 2.2 D.1.i. above for VOC emissions from Hickory Plant Coating Lines 5 and 6 (specialty chemicals) if all 3-hour periods of the month during which the average temperature of the RTO is greater or equal to the minimum temperature set point of the RTO during the above performance test. The Permittee shall apply a control efficiency of 0 percent for VOC for the RTO if any 3-hour period of the month during which the average temperature of the RTO is less than the average temperature of the RTO, during the most recent performance test in Section 2.2 D.1.i. above.

If the Permittee chooses to control VOC emissions from the Highland Plant Coating Line, the Permittee shall apply a control efficiency of 90 percent for VOC for the RTO if all 3-hour periods of the month during which the average temperature of the RTO is greater or equal to the average temperature of the RTO during the most recent performance test in Section 2.2 D.1.h. above, or the Permittee shall apply a control efficiency of 0 percent for VOC for the RTO if any 3-hour period of the month during which the average temperature of the RTO is less than the average temperature of the RTO during the most recent performance test in Section 2.2 D.1.h. above.

- (2) For Hickory Plant Pilot Coaters, Pilot Calenders, and Adhesive Coater in Section 2.3 j. ii. (A) above, the Permittee shall monitor the usage rates and VOC concentration of each material used in these coaters and calenders. VOC emissions shall be determined by multiplying the total amount of each type of VOC containing material consumed during the month, by the VOC content of each material.
- (3) Subsequent minor modifications in accordance with 15A NCAC 02Q.0515 shall utilize the method in Section 2.3.j.ii for PAL conformance until such time as permit renewal.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the Permittee does not comply with the requirements of Section 2.3 j.

[§51.166(w)(7)(vi) and §51.166(w)(12)(iii)]

- k. The Permittee shall calculate VOC emissions per month after the end of each month for rubber grinding and conveying and the pilot-scale extruder as follows:

$$\text{VOC, tons/month} = \Sigma[\text{rubber throughput, lb} \times \text{emission factor, lb/lb rubber processed}] / 2000$$

Where, emission factor = 4.44×10^{-4} lb/lb rubber processed

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- l. The Permittee shall calculate VOC emissions per month at the end of each month for boilers, drying ovens, emergency generators, and RTOs, as follows:

$$\text{VOC, tons/month} = \Sigma [\{ 5.5 \text{ lb}/10^6 \text{ scf} \times \text{A scf/month} \} + \{ 1.0 \text{ lb}/10^3 \text{ gallon} \times \text{B gallon/month} \} + \{ 0.00132 \text{ lb/hp-hr} \times \text{C hp-hr/month} \}] / [2000 \text{ lbs/ton}]$$

Where,

A = natural gas usage in standard cubic feet per month in boiler, drying oven or RTO.

B = propane usage in gallon per month in boiler or drying oven.

C = energy output in hp-hr per month for natural gas/propane-fired emergency generator.

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- m. The Permittee shall calculate VOC emissions per month after the end of each month for Maintenance Area Parts Washers, Groundwater Remediation System, and Other Sources, as follows:

emission rate of 0.25 ton/month for Maintenance Area Parts Washers

emission rate of 0.088 ton/month for Groundwater Remediation System

emission rate of 0.25 ton/month for Other Sources (**ID No. ES-33-RDSB**)

emission rate of 0.5 ton/month for Other Sources (**ID No.ES-GPC**)

emission rate of 0.25 ton/month for Other Sources (**ID No.ES-R&DPRN1 and ES-R&DPRN2**)

emission rate of 0.0005 ton/month for Other Sources (**ID No.ES-36-TK-PET**)

emission rate of 0.25 ton/month for Mixed Solvent Raw Material Storage Tanks (**ID Nos. ES-33ST-1**)
emission rate of 2.0E-04 ton/month per drum unloading station (**ID Nos. IES-33-DRUMUNLOAD**)
emission rate of 5.0E-04 ton/month per adhesive mixing tank (**ID Nos. IES-33-ADMIX**)

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- n. The Permittee shall record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for a PAL emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit. Notwithstanding the foregoing, the Permittee may consider actual production or operating data in determining its emissions for such a period if the Permittee has written records of such data and if the data are substantially the same as or similar in form or content to the monitoring data required by the PAL permit. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the Permittee does not comply with the requirements of Section 2.3 n. [§51.166(w)(12)(vii)]
- o. The Permittee shall determine facility wide VOC emissions per month using the emissions calculations in Section 2.4 j. through m. above. Calculations and the total amount of facility wide VOC emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the 12-month rolling facility wide VOC emissions exceed the limit in Section 2.3 a. above or the facility wide VOC emissions are not recorded.
- p. The Permittee shall retain on site a copy of all records necessary to determine compliance with any requirement in §51.166(w) and of the PAL, including a determination of each PAL emissions unit's 12-month rolling total emissions, for 5 years from the date of such record. The records may be retained in electronic format. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530, if these records are not maintained. [§51.166(w)(7)(viii) and §51.166(w)(13)(i)]
- q. The Permittee shall retain a copy of the following records, for the duration of the PAL effective period plus 5 years:
 - i. A copy of the PAL permit application and any applications for revisions to the PAL; and
 - ii. Each annual certification of compliance pursuant to Title V and the data relied on in certifying the compliance. This requirement applies only to the data used to certify compliance with the terms of the actuals PAL permit in Section 2.3.

The records may be retained in electronic format. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530, if these records are not maintained.

[§51.166(w)(7)(viii) and §51.166(w)(13)(ii)]

Reporting [15A NCAC 02Q .0508(f), and §51.166(w)(7)(ix) and §51.166(w)(14)]

- r. The Permittee shall submit semi-annual monitoring reports and prompt deviation reports to the reviewing authority in accordance with the applicable Title V operating permit program. The reports shall meet the requirements in paragraphs §51.166(w)(14)(i) through (iii).
 - i. Semi-annual report. The semi-annual report shall be submitted to the Regional Air Quality Supervisor postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. This report shall contain the information required in paragraphs §51.166(w)(14)(i)(a) through (g).
 - (A) The identification of Permittee and the permit number.
 - (B) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to paragraph §51.166 (w)(13)(i).
 - (C) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.
 - (D) A list of any PAL emissions units modified or added to the major stationary source during the preceding 6-month period.
 - (E) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.

- (F) A notification of a shutdown of any PAL permit monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the PAL emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by §51.166(w)(12)(vii).
- (G) A signed statement by the responsible official (as defined by the applicable Title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- ii. Deviation report. The Permittee shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to §70.6(a)(3)(iii)(B) of this chapter shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing §70.6(a)(3)(iii)(B) of 40 CFR. The reports shall contain the following information:
- (A) The identification of owner and operator and the permit number;
- (B) The PAL requirement that experienced the deviation or that was exceeded;
- (C) Emissions resulting from the deviation or the exceedance; and
- (D) A signed statement by the responsible official (as defined by the applicable Title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- iii. Re-validation results. The Permittee shall submit to the Regional Air Quality Supervisor the results of any re-validation within three months after completion of such revalidation.

2.4 - Actuals PAL Permit for GHGs

- a. The following Actuals Plantwide Applicability Limitations (Actuals PAL) shall not be exceeded:

Actuals Plantwide Applicability Limitations	
PAL Pollutant	GHG
Actuals PAL	114,271 in tons per rolling 12-months CO ₂ e
Effective Date	January 1, 2012
Expiration Date	December 31, 2022
PAL Emissions Units	Boilers and Other Combustion Sources ES-33-BLR-B3, ES-33-BLR-B4, ES-33-BLR-B5, ES-33-BLR-TEMP, ES-36-BLR-B1, ES-33-5-01, ES-33-6-02, ES-33-07-02, ES-33-09-02, ES-36-CL-1, IES-R&D-Gen, IES-GEN1, IES-GEN2, CD-33-56-RTO, and CD-36-RTO-1.

The Permittee may make modifications or additions to the PAL emissions units in Section 2.4.a. above, without requiring a modification to the PAL provisions of this permit if the emissions from the modified or additional emissions units will be calculated according to the monitoring methods specified in Section 2.4 i. and j. below, and the plantwide actual GHG emissions will remain less than 114,271 tons per rolling 12-months CO₂e.

- b. If the Permittee applies to renew the PAL permit in accordance with §51.166(w)(10) before the end of the PAL effective period in Section 2.4.a. above, then the PAL permit shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the DAQ. [§51.166(w)(7)(iii)]
- c. Once the PAL permit expires, the Permittee is subject to the requirements in §51.166(w)(9). Upon PAL permit expiration, the DAQ shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each PAL emissions unit, as the DAQ determines is appropriate. The DAQ will retain the ultimate discretion to decide whether and how the allowable emissions will be allocated. [§51.166(w)(7)(v)]

Testing [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this testing indicate that the GHG emissions on a 12-month rolling basis have exceeded the actual PAL in Section 2.4. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- e. The Permittee shall revalidate the emission factors and any other data used in Section 2.4 i. and j. below for calculations of GHG emissions through performance testing or other scientifically valid means approved by the DAQ. The Permittee shall perform such revalidation once every five years after the issuance of the PAL permit, in accordance with General Condition JJ. If the Permittee does not perform this revalidation, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

If any emission factors included in Section 2.4 are revised, the applicable provision of the PAL permit may be modified through a modification to the permit to reflect the results of a revalidation. The Permittee shall not rely on the updated emission factors until they are approved by DAQ and incorporated into the permit.

[§51.166(w)(12)(ix)]

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- f. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amounts of natural gas and propane burned in the boilers, drying ovens, and RTOs. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the amounts of fuels burned in the boilers, drying ovens, and RTOs are not monitored.
- g. The Permittee shall keep monthly records in a logbook (written or electronic format) of hours of operation for each emergency generator. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.
- h. The Permittee shall include in emissions calculations for compliance purposes emissions from startups, shutdowns, and malfunctions in Section 2.4. i. and j. below. [§51.166(w)(7)(iv)]
- i. The Permittee shall calculate GHG emissions per month at the end of each month for boilers, drying ovens, emergency generators, and RTOs, as follows:

GHG as CO₂e, tons/month =

$$\begin{aligned} & (\Sigma [\{ 53.06 \text{ kg}/10^6 \text{ Btu} \times A \text{ } 10^6 \text{ Btu}/\text{month} \} + \\ & \{ 0.001 \text{ kg}/10^6 \text{ Btu} \times A \text{ } 10^6 \text{ Btu}/\text{month} \times 25 \} + \\ & \{ 0.0001 \text{ kg}/10^6 \text{ Btu} \times A \text{ } 10^6 \text{ Btu}/\text{month} \times 298 \} + \\ & \{ 62.87 \text{ kg}/10^6 \text{ Btu} \times 0.092 \times 10^6 \text{ Btu}/\text{gallon} \times B \text{ gallons}/\text{month} \} + \\ & \{ 0.003 \text{ kg}/10^6 \text{ Btu} \times 0.092 \times 10^6 \text{ Btu}/\text{gallon} \times B \text{ gallons}/\text{month} \times 25 \} + \\ & \{ 0.0006 \text{ kg}/10^6 \text{ Btu} \times 0.092 \times 10^6 \text{ Btu}/\text{gallon} \times B \text{ gallons}/\text{month} \times 298 \}] \\ & \times (2.205) / 2000 \end{aligned}$$

Where,

A = natural gas usage in standard cubic feet per month in boiler, drying oven or RTO.

B = propane usage in gallon per month in boiler or drying oven.

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

The Permittee will update the global warming potentials as updated by EPA.

- j. If the Permittee chooses to utilize specialty chemicals, or any coating or solvent containing toluene, in Hickory Coating Lines 5 and 6, the Permittee shall calculate the GHG emissions per month at the end of each month for the PAL emissions unit CD-33-56-RTO, as follows:

$$\text{GHG as CO}_2\text{e, tons/month} = \Sigma[\text{amount of toluene destructed, lb} \times \text{emission factor for CO}_2 \text{ formation, lb CO}_2\text{/lb toluene destructed}]$$

Where, emission factor for CO₂ formation = 3.35 lb CO₂/lb toluene destructed

The amount of solvent destructed shall be determined at the end of each month, by multiplying the total amount of each type of specialty chemical, or coating or solvent containing toluene, consumed in Hickory Plant Coating Lines 5 and 6 during the month, by the toluene content of the specialty chemical, or coating or solvent containing toluene, and applying a control efficiency of the RTO. The Permittee shall apply a control efficiency of RTO based upon the most recent performance test in Section 2.2 D.1.i. above if all 3-hour periods of the month during which the minimum temperature set point of the RTO is greater or equal to the average temperature of the RTO during the above performance test. The Permittee shall apply a control efficiency of 0 percent for VOC for the RTO if any 3-hour period of the month during which the average temperature of the RTO is less than the average temperature of the RTO, during the most recent performance test in Section 2.2 D.1.i. above.

- k. The Permittee shall record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for a PAL emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit. Notwithstanding the foregoing, the Permittee may consider actual production or operating data in determining its emissions for such a period if the Permittee has written records of such data and if the data are substantially the same as or similar in form or content to the monitoring data required by the PAL permit. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the Permittee does not comply with the requirements of Section 2.4 k. [§51.166(w)(12)(vii)]
- l. The Permittee shall determine facility wide GHG emissions per month using the emissions calculations in Section 2.4 i. and j. above. Calculations and the total amount of facility wide GHG emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the 12-month rolling facility wide GHG emissions exceed the limit in Section 2.4 a. above or the facility wide GHG emissions are not recorded.
- m. The Permittee shall retain on site a copy of all records necessary to determine compliance with any requirement in §51.166(w) and of the PAL, including a determination of each PAL emissions unit's 12-month rolling total emissions, for 5 years from the date of such record. The records may be retained in electronic format. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530, if these records are not maintained. [§51.166(w)(7)(viii) and §51.166(w)(13)(i)]
- n. The Permittee shall retain a copy of the following records, for the duration of the PAL effective period plus 5 years:
 - i. A copy of the PAL permit application and any applications for revisions to the PAL; and
 - ii. Each annual certification of compliance pursuant to Title V and the data relied on in certifying the compliance. This requirement applies only to the data used to certify compliance with the terms of the actuals PAL permit in Section 2.4.

The records may be retained in electronic format. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530, if these records are not maintained.

[§51.166(w)(7)(viii) and §51.166(w)(13)(ii)]

Reporting [15A NCAC 02Q .0508(f), and §51.166(w)(7)(ix) and §51.166(w)(14)]

- o. The Permittee shall submit semi-annual monitoring reports and prompt deviation reports to the reviewing authority in accordance with the applicable Title V operating permit program. The reports shall meet the requirements in paragraphs §51.166(w)(14)(i) through (iii).
 - i. Semi-annual report. The semi-annual report shall be submitted to the Regional Air Quality Supervisor postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. This report shall contain the information required in paragraphs §51.166(w)(14)(i)(a) through (g).
 - (A) The identification of Permittee and the permit number.
 - (B) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the

- reporting period recorded pursuant to paragraph §51.166 (w)(13)(i).
- (C) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.
 - (D) A list of any PAL emissions units modified or added to the major stationary source during the preceding 6-month period.
 - (E) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.
 - (F) A notification of a shutdown of any PAL permit monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the PAL emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by §51.166(w) (12)(vii).
 - (G) A signed statement by the responsible official (as defined by the applicable Title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- ii. Deviation report. The Permittee shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to §70.6(a)(3)(iii)(B) of this chapter shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing §70.6(a)(3)(iii)(B) of 40 CFR. The reports shall contain the following information:
 - (A) The identification of owner and operator and the permit number;
 - (B) The PAL requirement that experienced the deviation or that was exceeded;
 - (C) Emissions resulting from the deviation or the exceedance; and
 - (D) A signed statement by the responsible official (as defined by the applicable Title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
 - iii. Re-validation results. The Permittee shall submit to the Regional Air Quality Supervisor the results of any re-validation within three months after completion of such revalidation.

2.5 Permit Shield for Nonapplicable Requirements

The Permittee is shielded from the following nonapplicable requirements [15A NCAC 02Q .0512(a)(1)(B)].

- i. The NSPS for VOC Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb) is not applicable to the molten resin tank (**ID No. IES-36-MRT-1**) because it is a storage vessel with a capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kP. [40 CFR 60.116(b)].
- ii. The NSPS for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ) is not applicable to the emergency generator (**ID No. IES-R&D-Gen**). This standard **DOES NOT** apply to emergency generator (**ID No. IES-R&D-Gen**) as owners and operators of stationary spark-ignition (SI) internal combustion engine (ICE) that commence construction after June 12, 2006, where the stationary SI ICE is manufactured [40 CFR 60.4230(a)(4)(iii and iv)]:
 - 1. Prior to July 1, 2008, for engines with a maximum engine power less than 500 HP.
 - 2. Prior to January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

SECTION 3 - GENERAL CONDITIONS (version 5.3, 08/21/2018)

This section describes terms and conditions applicable to this Title V facility.

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
 2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
 3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
 4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
 5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
 6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.
- B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.
- C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.
- D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:
- Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641
- All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).
- E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements

constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.

3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B. Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess

emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).

2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes

applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY**

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or

the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. Specific Permit Modifications [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. Third Party Participation and EPA Review [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound